TABLE 3:
WORLDWIDE SYNTHETIC (NONCELLULOSIC) FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY EXCEPT OLEFIN *(CONTINUED)*

THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1985			1986			1987		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
U.S.A.	**1286.3**	**1577.9**	**2864.2**	**1260.2**	**1658.6**	**2918.8**	**1304.5**	**1789.8**	**3094.3**
CANADA	**75.1**	**58.0**	**133.1**	**75.3**	**64.3**	**139.6**	**71.5**	**58.2**	**129.7**
OTHER AMERICAS									
ARGENTINA	27.1	16.8	43.9	30.7	24.4	55.1	27.9	29.4	57.3
BRAZIL	121.7	95.8	217.5	134.8	102.2	237.0	136.3	111.8	248.1
CHILE	4.1	2.0	6.1	4.0	2.3	6.3	4.4	2.7	7.1
COLOMBIA	38.3	9.9	48.2	38.1	9.2	47.3	38.6	10.8	49.4
COSTA RICA	3.5	0	3.5	4.2	0	4.2	4.2	0	4.2
ECUADOR	4.9	0	4.9	5.8	0	5.8	5.6	0	5.6
MEXICO	155.5	150.4	305.9	134.7	161.6	296.3	125.3	207.9	333.2
PERU	11.3	33.0	44.3	11.6	34.5	46.1	11.9	33.5	45.4
URUGUAY	1.8	4.0	5.8	1.8	3.2	5.0	2.0	3.4	5.4
VENEZUELA	12.5	6.0	18.5	13.4	10.5	23.9	14.3	21.9	36.2
TOTAL OTHER AMERICAS	**380.7**	**317.9**	**698.6**	**379.1**	**347.9**	**727.0**	**370.5**	**421.4**	**791.9**
JAPAN	**645.4**	**757.3**	**1402.7**	**605.2**	**750.4**	**1355.6**	**608.8**	**731.8**	**1340.6**
CHINA, PRC	**134.9**	**597.1**	**732.0**	**153.8**	**593.6**	**747.4**	**209.0**	**637.0**	**846.0**
OTHER ASIA									
BANGLADESH	0.5	0	0.5	0.5	0	0.5	0.5	0	0.5
INDIA	127.5	66.2	193.7	139.1	81.6	220.7	160.3	105.7	266.0
INDONESIA	76.9	70.3	147.2	86.2	78.0	164.2	107.0	80.9	187.9
KOREA, REP. OF	408.7	402.9	811.6	436.5	425.9	862.4	479.5	490.6	970.1
MALAYSIA	0	38.8	38.8	0	37.9	37.9	0	38.9	38.9
PAKISTAN	20.0	23.0	43.0	25.8	24.4	50.2	27.8	25.4	53.2
PHILIPPINES	22.0	12.2	34.2	20.0	15.0	35.0	23.0	12.7	35.7
SRI LANKA	1.2	0	1.2	1.3	0	1.3	1.5	0	1.5
TAIWAN	509.5	514.1	1023.6	605.6	626.5	1232.1	715.1	676.2	1391.3
THAILAND	42.6	55.0	97.6	40.0	57.0	97.0	51.3	67.2	118.5
TOTAL OTHER ASIA	**1208.9**	**1182.5**	**2391.4**	**1355.0**	**1346.3**	**2701.3**	**1566.0**	**1497.6**	**3063.6**
MIDDLE EAST, AFRICA & OCEANIA									
AUSTRALIA/N.Z.	14.6	1.0	15.6	16.3	1.0	17.3	16.0	1.1	17.1
EGYPT	5.6	27.6	33.2	6.3	30.6	36.9	6.9	32.1	39.0
IRAN	13.5	25.0	38.5	9.5	26.0	35.5	9.5	25.9	35.4
ISRAEL	13.7	7.3	21.0	10.5	8.0	18.5	11.5	10.0	21.5
KENYA	5.1	0	5.1	5.1	1.0	6.1	5.0	1.1	6.1
NIGERIA	3.2	3.0	6.2	3.5	3.1	6.6	4.0	3.1	7.1
SOUTH AFRICA	52.8	27.4	80.2	54.2	29.5	83.7	54.8	35.3	90.1
TANZANIA	2.0	0	2.0	2.5	0	2.5	3.0	0	3.0
TOTAL M.E., A. & O.	**110.5**	**91.3**	**201.8**	**107.9**	**99.2**	**207.1**	**110.7**	**108.6**	**219.3**
TOTAL WORLD	**5577.9**	**6910.7**	**12488.6**	**5693.9**	**7245.5**	**12939.4**	**6040.2**	**7704.3**	**13744.5**

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1988			1989			3/1990			12/1991		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
1340.9	1806.0	3146.9	1346.4	1773.0	3119.4	*1526.4*	*1974.1*	*3500.5*	*1608.0*	*2070.7*	*3678.7*
76.1	59.2	135.3	65.2	59.6	124.8	*108.4*	*73.0*	*181.4*	*108.4*	*73.0*	*181.4*
27.1	20.4	47.5	23.9	19.8	43.7	*48.3*	*40.6*	*88.9*	*48.3*	*40.6*	*88.9*
125.8	113.9	239.7	132.2	114.2	246.4	*175.7*	*136.1*	*311.8*	*175.7*	*151.1*	*326.8*
4.6	2.8	7.4	4.8	3.0	7.8	*7.7*	*15.0*	*22.7*	*7.7*	*15.0*	*22.7*
36.0	12.9	48.9	38.6	12.5	51.1	*59.2*	*26.5*	*85.7*	*60.0*	*41.5*	*101.5*
4.3	0	4.3	0	0	0	*0*	*0*	*0*	*0*	*0*	*0*
6.5	0	6.5	6.5	0	6.5	*7.2*	*0*	*7.2*	*7.2*	*0*	*7.2*
132.3	213.6	345.9	118.7	217.5	336.2	*180.9*	*266.0*	*446.9*	*194.9*	*359.0*	*553.9*
12.2	31.6	43.8	13.6	32.9	46.5	*19.8*	*38.0*	*57.8*	*19.8*	*38.0*	*57.8*
2.1	3.6	5.7	2.2	3.9	6.1	*5.0*	*5.5*	*10.5*	*5.0*	*5.5*	*10.5*
18.1	20.9	39.0	19.3	21.4	40.7	*24.7*	*37.0*	*61.7*	*24.7*	*37.0*	*61.7*
369.0	419.7	788.7	359.8	425.2	785.0	*528.5*	*564.7*	*1093.2*	*543.3*	*687.7*	*1231.0*
618.9	733.0	1351.9	656.9	720.3	1377.2	*834.0*	*926.0*	*1760.0*	*887.0*	*926.0*	*1813.0*
407.6	666.7	1074.3	412.0	763.0	1175.0	*454.0*	*1005.0*	*1459.0*	*480.0*	*1052.0*	*1532.0*
0.6	0	0.6	0.6	0	0.6	*1.0*	*0*	*1.0*	*1.0*	*18.0*	*19.0*
200.1	121.5	321.6	205.0	137.5	342.5	*323.0*	*299.0*	*622.0*	*490.0*	*432.0*	*922.0*
108.2	86.6	194.8	122.0	105.0	227.0	*184.0*	*205.0*	*389.0*	*214.7*	*225.0*	*439.7*
580.3	534.7	1115.0	628.8	561.0	1189.8	*705.4*	*630.0*	*1335.4*	*800.4*	*671.0*	*1471.4*
0	40.0	40.0	0	45.0	45.0	*0*	*50.0*	*50.0*	*0*	*50.0*	*50.0*
18.2	32.3	50.5	18.0	26.0	44.0	*31.0*	*72.0*	*103.0*	*40.0*	*110.0*	*150.0*
24.5	15.0	39.5	25.3	17.0	42.3	*35.0*	*25.0*	*60.0*	*42.0*	*50.0*	*92.0*
1.5	0	1.5	2.0	0	2.0	*3.0*	*0*	*3.0*	*3.0*	*0*	*3.0*
732.7	697.5	1430.2	783.5	739.6	1523.1	*929.3*	*915.4*	*1844.7*	*1054.0*	*949.4*	*2003.4*
56.0	74.4	130.4	60.0	85.0	145.0	*75.2*	*141.6*	*216.8*	*164.2*	*213.6*	*377.8*
1722.1	1602.0	3324.1	1845.2	1716.1	3561.3	*2286.9*	*2338.0*	*4624.9*	*2809.3*	*2719.0*	*5528.3*
15.2	1.2	16.4	17.0	1.2	18.2	*18.5*	*1.5*	*20.0*	*18.5*	*1.5*	*20.0*
8.2	34.2	42.4	9.4	38.4	47.8	*19.0*	*80.0*	*99.0*	*22.0*	*110.0*	*132.0*
9.9	25.0	34.9	10.3	30.0	40.3	*40.0*	*45.0*	*85.0*	*44.0*	*50.0*	*94.0*
12.0	8.0	20.0	12.4	0	12.4	*15.0*	*0*	*15.0*	*15.0*	*0*	*15.0*
5.0	1.1	6.1	4.9	1.1	6.0	*17.0*	*3.0*	*20.0*	*17.0*	*3.0*	*20.0*
4.5	3.1	7.6	4.5	3.2	7.7	*12.0*	*5.0*	*17.0*	*20.0*	*5.0*	*25.0*
60.7	35.2	95.9	61.4	35.9	97.3	*74.0*	*41.7*	*115.7*	*74.0*	*44.7*	*118.7*
3.0	0	3.0	3.0	0	3.0	*5.0*	*0*	*5.0*	*5.0*	*0*	*5.0*
118.5	107.8	226.3	122.9	109.8	232.7	*200.5*	*176.2*	*376.7*	*215.5*	*214.2*	*429.7*
6542.2	7820.8	14363.0	6718.4	7998.2	14716.6	*8319.1*	*10215.0*	*18534.1*	*9066.4*	*10994.1*	*20060.5*

TABLE 4:
WORLDWIDE ARTIFICIAL (CELLULOSIC) FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY
THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1985			1986			1987		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
WESTERN EUROPE [a]									
AUSTRIA	14.9	109.0	123.9			123.0			120.0
BELGIUM/NETHERLANDS	42.0	0	42.0			40.0			40.0
FINLAND	0	60.0	60.0			55.0			54.0
FRANCE	7.0	15.0	22.0	DETAIL		21.0	DETAIL		23.0
GERMANY, FED. REP.	64.0	55.0	119.0	NO		119.0	NO		118.0
GREECE	7.0	0	7.0	LONGER		7.7	LONGER		7.8
ITALY	30.2	0	30.2	AVAILABLE		30.0	AVAILABLE		29.0
PORTUGAL	1.0	0	1.0			0.9			1.2
SPAIN	7.5	30.0	37.5			37.0			35.0
SWEDEN	0	33.0	33.0			22.1			23.0
TURKEY	1.0	7.0	8.0			8.0			8.0
UNITED KINGDOM	19.0	60.2	79.2			58.0			55.0
TOTAL WESTERN EUROPE	**193.6**	**369.2**	**562.8**	**190.6**	**331.1**	**521.7**	**185.0**	**329.0**	**514.0**
EASTERN EUROPE									
BULGARIA	4.1	37.6	41.7	4.2	38.0	42.2	4.3	0	4.3
CZECHOSLOVAKIA	20.9	39.6	60.5	18.0	37.2	55.2	18.4	36.8	55.2
GERMANY, DEM. REP.	35.4	132.4	167.8	35.6	122.1	157.7	35.9	120.7	156.6
HUNGARY	0	5.5	5.5	0	5.5	5.5	0	4.1	4.1
POLAND	20.5	50.6	71.1	19.1	52.9	72.0	19.3	54.0	73.3
ROMANIA	8.8	53.0	61.8	9.0	55.0	64.0	9.0	57.0	66.0
USSR	246.0	340.0	586.0	246.0	343.0	589.0	246.5	345.0	591.5
YUGOSLAVIA	14.9	55.0	69.9	15.1	56.0	71.1	13.3	50.0	63.3
TOTAL EASTERN EUROPE	**350.6**	**713.7**	**1064.3**	**347.0**	**709.7**	**1056.7**	**346.7**	**667.6**	**1014.3**
TOTAL EUROPE	**544.2**	**1082.9**	**1627.1**	**537.6**	**1040.8**	**1578.4**	**531.7**	**996.6**	**1528.3**

Y Yarn+monofilaments.
S Staple+tow+fiberfill.
a. Starting in 1986 country detail is no longer available due to disclosure.
These totals do not include data for the Indonesian pilot plant nor production of artificial (cellulosic) fiber in North Korea.
Production and producing capacity by country, divided between rayon and acetate yarn, is given on pages 116 - 117.
Also note page 120 for data on production of cigarette tow.

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1988			1989			3/1990			12/1991		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
		132.0			136.0			*135.0*			*135.0*
		41.0			40.0			*43.0*			*43.0*
		60.4			64.8			*65.0*			*69.0*
DETAIL NO LONGER AVAILABLE		15.0	DETAIL NO LONGER AVAILABLE		2.0	DETAIL NO LONGER AVAILABLE		*3.0*	DETAIL NO LONGER AVAILABLE		*3.0*
		122.0			129.0			*129.0*			*129.0*
		7.2			7.5			*8.0*			*8.0*
		32.0			35.0			*43.0*			*43.0*
		0.8			0.9			*2.0*			*2.0*
		37.0			40.0			*39.0*			*42.0*
		20.0			20.3			*20.5*			*25.0*
		8.7			9.3			*10.0*			*10.0*
		64.0			55.0			*70.0*			*75.0*
191.0	**349.1**	**540.1**	**197.0**	**342.8**	**539.8**	***207.5***	***360.0***	***567.5***	***212.0***	***372.0***	***584.0***
4.4	0	4.4	4.4	0	4.4	*5.0*	*42.0*	*47.0*	*5.0*	*42.0*	*47.0*
18.9	39.4	58.3	11.9	29.1	41.0	*27.0*	*46.0*	*73.0*	*27.0*	*46.0*	*73.0*
36.3	118.8	155.1	38.4	131.9	170.3	*39.0*	*160.0*	*199.0*	*39.0*	*160.0*	*199.0*
0	4.2	4.2	0	4.3	4.3	*10.0*	*10.0*	*20.0*	*10.0*	*20.0*	*30.0*
20.2	54.0	74.2	16.9	44.2	61.1	*23.0*	*71.5*	*94.5*	*23.0*	*71.5*	*94.5*
9.1	66.5	75.6	9.0	61.6	70.6	*11.0*	*88.0*	*99.0*	*11.0*	*88.0*	*99.0*
263.8	337.2	601.0	245.1	338.9	584.0	*290.0*	*353.0*	*643.0*	*340.0*	*353.0*	*693.0*
14.0	54.0	68.0	14.9	56.2	71.1	*17.0*	*60.0*	*77.0*	*17.0*	*63.0*	*80.0*
366.7	**674.1**	**1040.8**	**340.6**	**666.2**	**1006.8**	***422.0***	***830.5***	***1252.5***	***472.0***	***843.5***	***1315.5***
557.7	**1023.2**	**1580.9**	**537.6**	**1009.0**	**1546.6**	***629.5***	***1190.5***	***1820.0***	***684.0***	***1215.5***	***1899.5***

TABLE 4:
WORLDWIDE ARTIFICIAL (CELLULOSIC) FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY *(CONTINUED)*

THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1985			1986			1987		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
U.S.A.	**92.8**	**160.2**	**253.0**	**97.4**	**183.3**	**280.7**	**86.7**	**187.9**	**274.6**
CANADA	**8.0**	**26.9**	**34.9**	**8.8**	**29.1**	**37.9**	**13.0**	**28.5**	**41.5**
OTHER AMERICAS									
ARGENTINA	1.5	1.5	3.0	3.0	4.9	7.9	3.3	2.5	5.8
BRAZIL	20.1	26.5	46.6	16.8	33.6	50.4	15.0	33.9	48.9
CHILE	1.3	3.8	5.1	1.3	3.9	5.2	1.3	4.0	5.3
COLOMBIA	1.8	0	1.8	1.8	0	1.8	2.3	0	2.3
CUBA	2.1	6.4	8.5	2.6	8.7	11.3	1.7	8.8	10.5
MEXICO	12.6	0	12.6	12.0	0	12.0	11.4	0	11.4
PERU	1.7	0	1.7	0.8	0	0.8	1.1	0	1.1
URUGUAY	1.0	0	1.0	1.3	0	1.3	1.2	0	1.2
VENEZUELA	2.1	0	2.1	1.5	0	1.5	2.2	0	2.2
TOTAL OTHER AMERICAS	**44.2**	**38.2**	**82.4**	**41.1**	**51.1**	**92.2**	**39.5**	**49.2**	**88.7**
JAPAN	**104.6**	**283.3**	**387.9**	**102.8**	**217.2**	**320.0**	**99.4**	**201.1**	**300.5**
CHINA, PRC	**51.0**	**130.0**	**181.0**	**53.0**	**130.0**	**183.0**	**55.0**	**132.0**	**187.0**
OTHER ASIA									
BANGLADESH	3.0	1.0	4.0	4.0	1.1	5.1	4.5	1.3	5.8
INDIA	46.9	95.0	141.9	49.6	90.4	140.0	50.7	116.8	167.5
INDONESIA	0	40.7	40.7	0	46.1	46.1	0	52.0	52.0
KOREA, REP. OF	13.8	0	13.8	13.9	0	13.9	14.1	0	14.1
PAKISTAN	3.2	0	3.2	3.2	0	3.2	3.3	0	3.3
PHILLIPPINES	0	0	0	0	0	0	0	0	0
TAIWAN	2.4	119.5	121.9	2.8	117.1	119.9	2.4	117.2	119.6
THAILAND	0	19.0	19.0	0	19.0	19.0	0	21.4	21.4
TOTAL OTHER ASIA	**69.3**	**275.2**	**344.5**	**73.5**	**273.7**	**347.2**	**75.0**	**308.7**	**383.7**
MIDDLE EAST, AFRICA & OCEANIA									
EGYPT	7.0	4.7	11.7	7.0	4.7	11.7	7.0	4.8	11.8
IRAQ	3.0	5.5	8.5	3.0	5.5	8.5	3.1	5.5	8.6
TOTAL M.E., A & O	**10.0**	**10.2**	**20.2**	**10.2**	**10.2**	**20.2**	**10.1**	**10.3**	**20.4**
TOTAL WORLD	**924.1**	**2006.9**	**2931.0**	**924.2**	**1935.4**	**2859.6**	**910.4**	**1914.3**	**2824.7**

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1988			1989			3/1990			12/1991		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
97.0	**181.3**	**278.3**	**98.7**	**164.6**	**263.3**	***99.3***	***146.5***	***245.8***	***99.3***	***146.5***	***245.8***
13.1	**33.2**	**46.3**	**13.1**	**33.5**	**46.6**	***14.5***	***38.0***	***52.5***	***24.5***	***38.0***	***62.5***
3.3	0	3.3	3.5	0	3.5	*11.8*	*5.0*	*16.8*	*11.8*	*5.0*	*16.8*
14.9	36.6	51.5	14.8	40.2	55.0	*17.0*	*41.7*	*58.7*	*17.0*	*41.7*	*58.7*
1.3	4.1	5.4	1.3	4.2	5.5	*1.5*	*5.4*	*6.9*	*1.5*	*5.4*	*6.9*
2.4	0	2.4	2.5	0	2.5	*3.5*	*0*	*3.5*	*3.5*	*0*	*3.5*
0.6	10.6	11.2	0.7	7.6	8.3	*1.5*	*11.0*	*12.5*	*1.5*	*11.0*	*12.5*
12.0	0	12.0	12.2	0	12.2	*15.8*	*0*	*15.8*	*15.8*	*0*	*15.8*
1.3	0	1.3	1.4	0	1.4	*1.7*	*0*	*1.7*	*1.7*	*0*	*1.7*
1.3	0	1.3	1.3	0	1.3	*1.9*	*0*	*1.9*	*1.9*	*0*	*1.9*
2.2	0	2.2	2.3	0	2.3	*2.4*	*0*	*2.4*	*2.4*	*0*	*2.4*
39.3	**51.3**	**90.6**	**40.0**	**52.0**	**92.0**	***57.1***	***63.1***	***120.2***	***57.1***	***63.1***	***120.2***
99.8	**190.8**	**290.6**	**99.0**	**174.0**	**273.0**	***117.4***	***214.9***	***332.3***	***117.4***	***214.9***	***332.3***
53.0	**120.0**	**173.0**	**50.0**	**130.0**	**180.0**	***65.0***	***165.0***	***230.0***	***65.0***	***170.0***	***235.0***
4.8	1.0	5.8	4.8	1.0	5.8	*5.4*	*5.0*	*10.4*	*5.4*	*5.0*	*10.4*
52.6	121.5	174.1	53.0	125.0	178.0	*78.9*	*168.1*	*247.0*	*78.9*	*169.8*	*248.7*
0	59.0	59.0	0	60.0	60.0	*0*	*96.6*	*96.6*	*0*	*167.6*	*167.6*
15.1	0	15.1	15.3	0	15.3	*17.0*	*28.0*	*45.0*	*17.0*	*28.0*	*45.0*
2.8	0	2.8	3.2	0	3.2	*3.5*	*0*	*3.5*	*3.5*	*0*	*3.5*
0	0	0	0	0	0	*0*	*25.0*	*25.0*	*0*	*25.0*	*25.0*
2.6	123.2	125.8	2.6	145.0	147.6	*3.2*	*147.6*	*150.8*	*4.0*	*149.4*	*153.4*
0	24.0	24.0	0	41.2	41.2	*0*	*42.0*	*42.0*	*0*	*42.0*	*42.0*
77.9	**328.7**	**406.6**	**78.9**	**372.2**	**451.1**	***108.0***	***512.3***	***620.3***	***108.8***	***586.8***	***695.6***
7.0	5.0	12.0	7.9	5.2	13.1	*8.0*	*5.4*	*13.4*	*8.0*	*5.4*	*13.4*
2.9	5.5	8.4	3.0	5.6	8.6	*3.5*	*6.5*	*10.0*	*3.5*	*6.5*	*10.0*
9.9	**10.5**	**20.4**	**10.9**	**10.8**	**21.7**	***11.5***	***11.9***	***23.4***	***11.5***	***11.9***	***23.4***
947.7	**1939.0**	**2886.7**	**928.2**	**1946.1**	**2874.3**	***1102.3***	***2342.2***	***3444.5***	***1167.6***	***2446.7***	***3614.3***

TABLE 5:
WORLDWIDE RAYON VS. ACETATE FILAMENT YARN PRODUCTION & PRODUCING CAPACITY BY COUNTRY
THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1985			1986			1987		
	H	R&C	A	H	R&C	A	H	R&C	A
WESTERN EUROPE									
AUSTRIA	10	5	0						
BELGIUM/NETHERLANDS	18	17	7						
FRANCE	0	7	0						
GERMANY, FED. REP. OF	40	24	0	DETAIL NO LONGER AVAILABLE			DETAIL NO LONGER AVAILABLE		
ITALY [a]	10	2	18						
SPAIN	+	4	3						
UNITED KINGDOM	0	0	19						
OTHER [b]	0	9	0						
TOTAL WESTERN EUROPE	**78**	**68**	**47**	**71**	**69**	**51**	**67**	**70**	**48**
EASTERN EUROPE									
BULGARIA	0	4	0	0	4	0	0	4	0
CZECHOSLOVAKIA	8	13	0	8	10	0	8	10	0
GERMANY, DEM. REP.	13	22	0	14	22	0	14	22	0
HUNGARY	0	0	0	0	0	0	0	0	0
POLAND	5	15	0	5	14	0	5	15	0
ROMANIA	5	4	0	5	4	0	5	4	0
USSR [a]	116	80	50	116	80	50	117	80	50
YUGOSLAVIA	8	7	0	7	8	0	6	7	0
TOTAL EASTERN EUROPE	**156**	**145**	**50**	**155**	**142**	**50**	**155**	**142**	**50**
U.S.A.	**9**	**6**	**78**	**7**	**6**	**84**	**7**	**6**	**74**
CANADA	**0**	**0**	**8**	**0**	**0**	**9**	**0**	**0**	**9**
OTHER AMERICAS									
ARGENTINA	0	0	2	0	0	3	0	0	3
BRAZIL	4	15	1	1	15	0	0	15	0
CHILE	0	1	0	0	1	0	0	1	0
COLOMBIA	0	0	2	0	0	2	0	0	2
CUBA	2	0	0	3	0	0	2	0	0
MEXICO	2	3	7	2	3	7	2	3	6
PERU	0	0	2	0	0	1	0	0	1
URUGUAY	0	0	1	0	0	1	0	0	1
VENEZUELA	0	0	2	0	0	2	0	0	2
TOTAL OTHER AMERICAS	**8**	**19**	**17**	**6**	**19**	**16**	**4**	**19**	**15**
JAPAN [a]	**2**	**74**	**28**	**2**	**74**	**27**	**2**	**71**	**27**
CHINA, PRC	**0**	**51**	**0**	**0**	**53**	**0**	**0**	**55**	**0**
OTHER ASIA									
BANGLADESH	0	3	0	0	1	0	0	5	0
INDIA	7	40	+	5	44	+	5	46	+
KOREA, REP. OF	0	12	2	0	12	2	0	12	2
PAKISTAN	0	0	3	0	0	3	0	0	3
TAIWAN	0	2	0	0	3	0	0	2	0
TOTAL OTHER ASIA	**7**	**57**	**5**	**5**	**63**	**5**	**5**	**65**	**5**
OTHER M.E., A & O [c]	**0**	**10**	**0**	**0**	**10**	**0**	**0**	**10**	**0**
WORLD TOTAL	**260**	**430**	**233**	**246**	**436**	**242**	**240**	**438**	**228**

NA No Longer Available
H High tenacity (tire & industrial type) viscose rayon yarn.
R Regular + intermediate tenacity viscose rayon yarn.
C Cuprammonium rayon yarn.
A Acetate + triacetate yarn.
a. Produces both regular + intermediate rayon yarn and cuprammonium rayon yarn.
b. Comprises Greece, Portugal and Turkey.
c. Comprises Egypt and Iraq.

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1988			1989			3/1990			12/1991		
H	R&C	A	H	R&C	A	H	R&C	A	H	R&C	A
DETAIL NO LONGER AVAILABLE			DETAIL NO LONGER AVAILABLE			DETAIL NO LONGER AVAILABLE			DETAIL NO LONGER AVAILABLE		
75	**66**	**50**	**79**	**67**	**51**	**87**	**68**	**53**	**87**	**71**	**54**
0	4	0	0	4	0	*0*	*5*	*0*	*0*	*5*	*0*
8	11	0	5	7	0	*11*	*16*	*0*	*11*	*16*	*0*
14	23	0	15	24	0	*15*	*24*	*0*	*15*	*24*	*0*
0	0	0	0	0	0	*0*	*10*	*0*	*0*	*10*	*0*
5	16	0	4	13	0	*0*	*23*	*0*	*0*	*23*	*0*
5	4	0	5	4	0	*6*	*5*	*0*	*6*	*5*	*0*
119	85	60	104	91	50	*120*	*100*	*70*	*150*	*120*	*70*
6	7	0	7	8	0	*8*	*9*	*0*	*8*	*9*	*0*
157	**150**	**60**	**140**	**151**	**50**	***160***	***192***	***70***	***190***	***212***	***70***
7	**6**	**84**	**NA**	**NA**	**NA**	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***
0	**0**	**9**	**NA**	**NA**	**NA**	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***
0	0	3	0	0	4	*2*	*6*	*4*	*2*	*6*	*4*
0	15	0	0	15	0	*0*	*17*	*0*	*0*	*17*	*0*
0	1	0	0	1	0	*0*	*1*	*0*	*0*	*1*	*0*
0	0	2	0	0	3	*0*	*0*	*4*	*0*	*0*	*4*
2	0	0	1	0	0	*1*	*0*	*0*	*1*	*0*	*0*
2	4	6	2	4	6	*3*	*4*	*9*	*3*	*4*	*9*
0	0	1	0	0	1	*0*	*0*	*2*	*0*	*0*	*2*
0	0	1	0	0	1	*0*	*0*	*2*	*0*	*0*	*2*
0	0	2	0	0	2	*0*	*0*	*2*	*0*	*0*	*2*
4	**20**	**15**	**3**	**20**	**17**	***6***	***28***	***23***	***6***	***28***	***23***
1	**72**	**27**	**+**	**73**	**26**	***0***	***85***	***33***	***0***	***85***	***33***
0	**53**	**0**	**0**	**50**	**0**	***0***	***65***	***0***	***0***	***65***	***0***
0	4	0	0	5	0	*0*	*5*	*0*	*0*	*5*	*0*
9	44	0	9	44	0	*21*	*54*	*4*	*21*	*54*	*4*
0	12	3	0	11	4	*0*	*12*	*5*	*0*	*12*	*5*
0	0	3	0	0	3	*0*	*0*	*4*	*0*	*0*	*4*
0	3	0	0	3	0	*0*	*3*	*0*	*0*	*4*	*0*
9	**63**	**6**	**9**	**63**	**7**	***21***	***74***	***13***	***21***	***75***	***13***
0	**10**	**0**	**0**	**11**	**0**	***0***	***12***	***0***	***0***	***12***	***0***
253	**440**	**251**	**NA**	**NA**	**NA**	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***

TABLE 6:
WORLDWIDE SYNTHETIC (NONCELLULOSIC) FIBER PRODUCTION & PRODUCING CAPACITY BY FIBER EXCEPT OLEFIN

THOUSAND METRIC TONS

FIBER & AREA	ACTUAL PRODUCTION								
	1985			1986			1987		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
ACRYLIC+MODACRYLIC									
WEST EUROPE	1	925	926	1	939	940	1	948	949
EAST EUROPE	0	245	245	0	257	257	0	281	281
U.S.A.	0	286	286	0	279	279	0	268	268
CANADA	0	0	0	0	0	0	0	0	0
OTHER AMERICAS	0	134	134	0	154	154	0	181	181
JAPAN	2	380	382	3	394	397	3	404	407
CHINA, PRC	0	73	73	0	74	74	0	75	75
OTHER ASIA	0	319	319	0	327	327	0	344	344
MIDDLE EAST, AFRICA & OCEANIA	0	16	16	0	18	18	0	20	20
TOTAL	**3**	**2378**	**2381**	**4**	**2442**	**2446**	**4**	**2521**	**2525**
NYLON+ARAMID [a]									
WEST EUROPE	532	152	684	517	141	658	518	137	655
EAST EUROPE	539	93	632	548	99	647	566	100	666
U.S.A.	687	375	1062	728	412	1140	770	450	1220
CANADA	54	12	66	54	14	68	51	13	64
OTHER AMERICAS	175	8	183	170	11	181	165	10	175
JAPAN	291	24	315	260	19	279	262	17	279
CHINA, PRC	70	1	71	74	1	75	79	1	80
OTHER ASIA	367	5	372	387	4	391	426	6	432
MIDDLE EAST, AFRICA & OCEANIA	56	1	57	57	1	58	58	1	59
TOTAL	**2771**	**671**	**3442**	**2795**	**702**	**3497**	**2895**	**735**	**3630**
POLYESTER									
WEST EUROPE	451	493	944	447	507	954	451	510	961
EAST EUROPE	207	409	616	239	430	669	257	473	730
U.S.A.	599	917	1516	532	968	1500	535	1071	1606
CANADA	21	46	67	21	50	71	20	45	65
OTHER AMERICAS	205	176	381	208	183	391	205	230	435
JAPAN	329	323	652	322	310	632	323	283	606
CHINA, PRC	55	443	498	70	456	526	120	496	616
OTHER ASIA	841	858	1699	968	1015	1983	1140	1145	2285
MIDDLE EAST, AFRICA & OCEANIA	55	74	129	51	81	132	53	88	141
TOTAL	**2763**	**3739**	**6502**	**2858**	**4000**	**6858**	**3104**	**4341**	**7445**
OTHER FIBERS EXCEPT OLEFIN [b]									
WEST EUROPE	6	9	15	5	9	14	5	9	14
EAST EUROPE	1	3	4	1	3	4	1	3	4
U.S.A.	+	+	+	+	+	+	+	+	+
CANADA	+	0	+	+	0	+	+	0	+
OTHER AMERICAS	1	0	1	1	0	1	1	0	1
JAPAN	23	30	53	20	27	47	20	28	48
CHINA, PRC	10	80	90	10	63	73	10	65	75
OTHER ASIA	+	1	1	+	1	1	0	2	2
MIDDLE EAST, AFRICA & OCEANIA	0	0	0	0	0	0	0	0	0
TOTAL	**41**	**123**	**164**	**37**	**103**	**140**	**37**	**107**	**144**
TOTAL FIBERS ABOVE									
WEST EUROPE	990	1579	2569	970	1596	2566	975	1604	2579
EAST EUROPE	747	750	1497	788	789	1577	824	857	1681
U.S.A.	1286	1578	2864	1260	1659	2919	1305	1789	3094
CANADA	75	58	133	75	64	139	71	58	129
OTHER AMERICAS	381	318	699	379	348	727	371	421	792
JAPAN	645	757	1402	605	750	1355	608	732	1340
CHINA, PRC	135	597	732	154	594	748	209	637	846
OTHER ASIA	1208	1183	2391	1355	1347	2702	1566	1497	3063
MIDDLE EAST, AFRICA & OCEANIA	111	91	202	108	100	208	111	109	220
WORLD TOTAL	**5578**	**6911**	**12489**	**5694**	**7247**	**12941**	**6040**	**7704**	**13744**

Y Yarn+monofilaments.
S Staple+tow+fiberfill.
+ Nominal quantities.

a. U.S.A. nylon producing capacity data do not include aramid.
b. Other fibers are alginate, azlon, spandex or elastomer, saran, TFE-fluorocarbon, vinal and vinyon. U.S.A. production data do not include spandex.

ACTUAL PRODUCTION						PRODUCING CAPACITY						% UTILIZATION [c]	
1988			1989			3/1990			12/1991				
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S
1	875	876	1	793	794	1	1084	1085	1	1097	1098	100.0	73.5
0	277	277	0	288	288	0	398	398	0	430	430	0	72.5
0	267	267	0	246	246	0	291	291	0	295	295	0	84.5
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	181	181	0	181	181	0	224	224	0	272	272	0	82.8
3	395	398	3	363	366	6	426	432	6	426	432	50.0	83.6
0	77	77	0	100	100	0	125	125	0	152	152	0	80.0
0	351	351	0	363	363	0	438	438	0	516	516	0	84.8
0	17	17	0	14	14	0	20	20	0	41	41	0	70.0
4	**2440**	**2444**	**4**	**2348**	**2352**	**7**	**3006**	**3013**	**7**	**3229**	**3236**	**57.1**	**78.5**
548	137	685	557	148	705	676	202	878	671	200	871	83.7	74.9
582	103	685	580	104	684	693	124	817	724	127	851	84.2	85.2
784	427	1211	798	445	1243	935	518	1453	964	527	1491	88.1	85.8
54	13	67	56	16	72	97	24	121	97	24	121	57.7	66.7
160	7	167	149	8	157	239	14	253	239	14	253	58.2	43.2
267	15	282	266	16	282	320	27	347	373	27	400	82.7	59.3
93	1	94	104	1	105	119	20	139	145	25	170	90.8	8.0
468	6	474	470	6	476	615	18	633	734	18	752	78.0	46.2
61	1	62	64	1	65	105	3	108	105	3	108	62.1	28.6
3017	**710**	**3727**	**3044**	**745**	**3789**	**3799**	**950**	**4749**	**4052**	**965**	**5017**	**81.1**	**79.6**
474	539	1013	487	596	1083	627	628	1255	625	656	1281	78.9	95.0
278	483	761	276	492	768	373	702	1075	385	722	1107	77.7	72.5
557	1112	1669	548	1082	1630	591	1165	1756	644	1248	1892	90.2	92.0
22	46	68	9	44	53	11	49	60	11	49	60	81.8	86.3
208	231	439	210	236	446	287	327	614	302	402	704	70.7	76.6
329	293	622	367	308	675	478	374	852	478	374	852	77.6	82.8
307	530	837	300	600	900	320	785	1105	320	800	1120	93.8	82.2
1254	1244	2498	1376	1346	2722	1671	1882	3553	2074	2185	4259	83.4	74.9
57	90	147	59	95	154	96	153	249	111	170	281	55.9	64.0
3486	**4568**	**8054**	**3632**	**4799**	**8431**	**4454**	**6065**	**10519**	**4950**	**6606**	**11556**	**81.7**	**81.5**
5	9	14	9	9	18	10	12	22	8	12	20	100.0	75.0
1	3	4	1	2	3	1	8	9	1	8	9	100.0	25.0
+	+	+	+	+	+	+	+	+	+	+	+	0	0
+	0	+	+	0	+	+	0	+	+	0	+	0	0
1	0	1	1	0	1	2	0	2	2	0	2	66.7	0
20	30	50	20	32	52	30	99	129	30	99	129	66.7	32.3
8	59	67	8	62	70	15	75	90	15	75	90	53.3	82.7
0	2	2	0	1	1	0	1	1	0	1	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	**103**	**138**	**39**	**106**	**145**	**58**	**195**	**253**	**56**	**195**	**251**	**67.8**	**54.6**
1028	1560	2588	1054	1546	2600	1314	1926	3240	1305	1965	3270	81.5	80.7
861	866	1727	857	886	1743	1067	1232	2299	1110	1287	2397	82.0	73.5
1341	1806	3147	1346	1773	3119	1526	1974	3500	1608	2070	3678	88.9	89.3
76	59	135	65	60	125	108	73	181	108	73	181	60.2	80.0
369	419	788	360	425	785	528	565	1093	543	688	1231	64.9	78.0
619	733	1352	656	719	1375	834	926	1760	887	926	1813	79.0	77.1
408	667	1075	412	763	1175	454	1005	1459	480	1052	1532	91.7	81.0
1722	1603	3325	1846	1716	3562	2287	2338	4625	2809	2719	5528	81.9	76.7
118	108	226	123	110	233	201	176	377	216	214	430	59.0	64.0
6542	**7821**	**14363**	**6719**	**7998**	**14717**	**8318**	**10216**	**18534**	**9065**	**10995**	**20060**	**81.4**	**79.9**

c. Based on 1989 production and average March 1989 vs. March 1990 producing capacity. Refer to June 1989 ***Fiber Organon*** for March 1989 producing capacity.

The regional totals here are the same as those on pages 108 - 111

TABLE 7:
WORLDWIDE GLASS FIBER
PRODUCTION & PRODUCING CAPACITY
THOUSAND METRIC TONS

	PRODUCTION					CAPACITY	
COUNTRY	1985	1986	1987	1988	1989	3/90	12/91
WEST EUROPE EAST EUROPE[a]	320	364	407	465	470	*440* *100*	*540* *110*
U.S.A.	610	630	725	730	735	*826*	*928*
OTHER AMERICAS	32	35	50	65	65	*80*	*95*
JAPAN	273	240	300	340	345	*350*	*360*
MIDDLE EAST, AFRICA & OCEANIA[b]	28	30	35	55	65	*80*	*95*
TOTAL ABOVE	**1263**	**1299**	**1517**	**1655**	**1680**	***1876***	***2128***
CHINA P.R.C.	50	50	55	65	70	*100*	*110*
U.S.S.R.	85	100	110	125	133	*200*	*200*

Glass fiber is defined on page 122 of this issue. The glass fiber producing capacity, is based on March 1990 and December 1991 annual projections.

a. The data for East Europe do not include estimates for the U.S.S.R.
b. The Other Asia, Africa & Oceania countries are Australia, India, Korea, Rep. of, South Africa and Taiwan.

TABLE 8:
ESTIMATED WORLDWIDE
CIGARETTE TOW PRODUCTION
THOUSAND METRIC TONS

AREA	1985	1986	1987	1988	1989
EUROPE[a]	83	104	107	124	127
U.S.A. OTHER AMERICAS[b]	210	216	247	249	265
ASIA[c]	44	42	46	49	55
WORLD TOTAL	**337**	**362**	**400**	**422**	**447**

a. Belgium, Germany, Fed. Rep., U.S.S.R. & United Kingdom.
b. Brazil, Canada, Colombia, Mexico & Venezuela.
c. Japan and Korea, Rep. of.

TABLE 9:
WORLDWIDE OLEFIN FIBER PRODUCTION
THOUSAND METRIC TONS

COUNTRY	1985	1986	1987	1988	1989
WEST EUROPE					
AUSTRIA	24	26	27	30	32
BENELUX	120	141	160	165	170
DENMARK	25	26	30	32	34
FINLAND	24	24	18	19	20
FRANCE	50	55	58	70	75
GREECE/CYPRUS	14	15	16	17	18
GERMANY, FED. REP.	99	104	115	135	145
IRELAND	9	9	10	10	10
ITALY	127	130	130	135	135
NORWAY	4	4	5	4	5
PORTUGAL	30	30	36	37	38
SPAIN	37	41	49	53	56
SWEDEN	6	6	6	7	8
SWITZERLAND	14	17	20	22	21
TURKEY	6	6	7	7	10
UNITED KINGDOM	95	110	125	140	145
TOTAL WEST EUROPE	**684**	**744**	**812**	**883**	**922**
EAST EUROPE					
CZECHOSLOVAKIA	12	12	12	12	13
HUNGARY	17	20	22	26	28
POLAND	16	17	17	17	20
U.S.S.R.	22	24	24	25	25
U.S.A.					
YARN+MONOFIL	192	213	224	251	268
STAPLE	137	152	164	165	173
FILM FIBER	233	263	291	293	288
CANADA	48	55	61	62	66
OTHER AMERICAS					
ARGENTINA	15	19	24	18	15
BRAZIL	39	40	40	77	82
CHILE	5	6	7	6	7
COLOMBIA	0	0	3	3	3
EL SALVADOR, GUATEMALA, HONDURAS	3	3	3	3	3
MEXICO	26	27	27	28	28
NICARAGUA	1	1	1	1	1
PERU	6	7	7	7	7
URUGUAY	2	2	2	2	2
JAPAN					
YARN+MONOFIL	14	11	14	16	20
STAPLE	35	37	36	38	38
FILM FIBER	NA	NA	NA	NA	NA
OTHER ASIA					
KOREA, REP. OF	1	0	0	0	0
PHILIPPINES	3	3	3	3	3
TAIWAN	71	77	78	79	90
MIDDLE EAST, AFRICA & OCEANIA					
AUSTRALIA	23	25	26	26	28
SOUTH AFRICA	5	5	5	5	10
OTHER	1	1	1	1	1

The olefin data shown include the "official" country data published by a government, an association or other statistical agency as well as an estimate of the olefin fiber, mainly slit and split film fiber, believed to have been produced in the country. For example: although U.S. olefin production data include yarn, monofil, staple, film fiber, and spunbonded polypropylene, published Italian and Japanese olefin data show the production of yarn+monofilaments and staple+tow but no data on production of film fiber, such as that used in sacks, fishing nets, and carpet backing. Estimates were made in the latter example.
Due to the inconsistencies in olefin production reporting, we have made no attempt to show a worldwide total.

1990 WORLDWIDE DIRECTORY OF MANUFACTURED FIBER PRODUCERS

NOTES & DEFINITIONS

This directory of producers lists each country separately and is divided into the following categories:

(1) Artificial (Cellulosic) plus Synthetic (Noncellulosic) fibers
(2) Olefin fiber
(3) Glass fiber

The locality shown represents a plant site.

The generic fiber names used in this survey are those established by the U.S. Federal Trade Commission (FTC). The *italicized* words are trademarks. All other fiber names are generic and appear in regular type.

• Indicates a company producing olefin fiber as well as other manufactured fiber(s). For example, Mitsubishi Rayon Co. produces olefin fiber in Japan as well as acrylic and polyester. The acrylic and polyester entries for this company are in one section and the olefin entry is shown in the Olefin fiber section.

* Indicates a new plant, in the planning stage or under construction, or a new facility for producing a new product at an existing plant. Such facilities are not expected to be operable until 1991 or later.

Yarn means filament yarn.
Monofil means an extruded monofilament and may be either a round or rectangular (ribbon) cross-section. Monofilaments for bristles are excluded.
Film includes **Slit**: tape produced by slitting an already attenuated wide sheet of olefin film; and **Split:** fibrillated slit film.
Not included in this survey is the slit film used for decorative or tying ribbon and such.
Captive means that most or all of the fiber produced is consumed by the company in a vertical operation.

GENERIC NAMES & TRADEMARKS

The following are generic names, in bold type, and a brief description of the fibers covered by each name is shown in regular type.

GLASS FIBER

This fiber is made in two primary forms: continuous strand and staple sliver. Continuous strand is drawn fiber (i.e., from a textile-type bushing), while staple sliver, which is produced in relatively small amounts, is a blown fiber.

Glass fiber is produced and sold as filament yarn, strand, roving, mat, chopped strand, milled fiber and staple yarn & sliver. In addition, there are two primary uses for glass fiber: Textile, used by textile mills in conventional constructions (e.g., drapery and tire cord) or Non-Textile, used for nonconventional constructions (e.g., reinforced plastics and roofing shingles).

For additional information, see the definitions on page 243 of the November 1989 ***Fiber Organon***.

ARTIFICIAL (CELLULOSIC) FIBERS

Acetate: Cellulose acetate. Cigarette filtration tow is excluded.
Triacetate: Cellulose acetate, wherein not less than 92% of the hydroxyl groups are acetylated.
Rayon: Regenerated cellulose, including substitutions for not more than15% of the hydrogens of the hydroxyl groups. Includes high wet modulus fiber.
Cupra: Cuprammonium rayon.
The viscose rayon yarns are identified as **Ind** (industrial or high tenacity yarn) and **reg** (regular or textile yarn).

SYNTHETIC (NONCELLULOSIC) FIBERS

Acrylic: At least 85% acrylonitrile by weight.
Modacrylic: 35% to 84% acrylonitrile by weight, except when it qualifies as rubber.
Azlon: Regenerated natural protein.
Nylon: A long-chain synthetic polyamide in which less than 85% of the amide linkages are attached directly to two aromatic rings. The types are identified as 6, 66, etc. Where a company produces both type 6 and 66, the designation 6/66 is used.
Aramid: A long-chain synthetic polyamide in which at least 85% of the amide linkages are attached directly to two aromatic rings.
Olefin: At least 85% ethylene, propylene or other olefin units by weight, except amorphous (noncrystalline) polyolefins qualifying as rubber. **E** means Polyethylene and **P** means Polypropylene. Also see adjoining notes on olefin fiber.
Polyester: At least 85% by weight of an ester of a substituted aromatic carboxylic acid, including but not restricted to substituted terephthalate units, and parasubstituted hydroxybenzoate units.
Saran: At least 80% vinylidene chloride by weight.
Spandex: At least 85% of segmented polyurethane.
Vinal: At least 50% by weight vinyl alcohol and wherein the vinyl alcohol plus acetal units are at least 85% by weight.
Vinyon: At least 85% vinyl chloride by weight.

Other manufactured fibers included in this survey, but not listed by the FTC, are **Polycarbonate** (U.S.A.), **Polychlal** (Japan), **Promix** (Japan) and **TFE-&FEP-fluorocarbon** (Fluoro)(Japan, U.S.A. & U.S.S.R.).

Not covered in this survey are fibers which would fall under the FTC's generic designations of rubber, lastrile, metallic and novoloid. Fibers falling under the FTC designations of anidex and nytril are no longer produced.

Carbon fibers are not included in this survey.

International Standard #2076, "Generic Names of Man-Made Fibres," as established by the International Organization for Standardization, lists some 23 names, of which the following are similar to the FTC designations: cupro, viscose, acetate, triacetate, acrylic, modacrylic, nylon or polyamide, polyester and glass. The IOS also lists modal (regenerated cellulose obtained by processes giving a high tenacity and a high wet modulus), alginate (metallic salts of alginic acid), chlorofibre (similar to the FTC's saran and vinyon), elastane (similar to the FTC's spandex), elastodiene, fluorofibre, polycarbamide, polyethylene & polypropylene (similar to the FTC's olefin), polyurethane, trivinyl and vinylal (similar to the FTC's vinal).

ALBANIA

(Producer not yet known)
Polyester (yarn & staple*)

ARGENTINA

COAFI S.A.
Polyester Buenos Aires (yarn)

DUCILO S.A.I.C.
Nylon 66 Berazategui & Mercedes *Nylon Ducilo* (yarn)
Spandex Mercedes (fused multifil or coalesced monofil)

HISISA ARGENTINA S.A.I.C.I.F.
Acrylic Baradero *Cashmilon* (staple)

MANUFACTURAS DE FIBRAS SYNTETICAS (formerly Petroquimica Sudamericana)
Nylon 6 Olmos - Lapi (yarn)
Polyester Olmos - Lapi (yarn & staple)

MITEXTIL S.A.
Nylon 6 Buenos Aires (yarn)

M. NAHMIAS S.A.C.I.
Polyester Buenos Aires (yarn)

NICIEZA y TAVERNA HNOS. S.A.
Nylon 6 Chivilcoy *Grilon* (monofil)

RHODIA ARGENTINA QUIMICA e TEXTIL
Acetate Quilmes (yarn)
Polyester Quilmes *Tergal* (yarn)

SOCIEDAD NUEVAS INDUSTRIAS ARGENTINAS FIBRAS ARTIFICIALES S.A.I.C.F.I. (SNIAFA)
Nylon 6 Hernández-La Plata *Snialon* (yarn)

SUDAMTEX S.A. TEXTIL SUDAMERICANA
Polyester Azul *Acrocel* (staple)

VALENCIANA ARGENTINA S.A.
Nylon 6 Buenos Aires (yarn)

OLEFIN FIBER

AGAPOL S.A. (P yarn)

MANUFACTURA FORTI ARGENTINA S.A.C.I.A.F.I. Buenos Aires (P yarn & staple)

PANAMERICA DE PLASTICOS S.A.I.C. Olivos (P staple)

PETROQUIMICA Cuyo, Mondoza (P yarn)

TEXTILYUTE S.A.I.C. Isidro Casanova (P film)

VINISA S.A.I.C. Buenos Aires *Rafistal, Strofil* (E & P monofil)

GLASS FIBER

VIDRIERIA ARGENTINA S.A. (VASA) Llavallol *Texover*

AUSTRALIA

FIBREMAKERS LTD.
Nylon 66 Bayswater, Victoria *Bri-Nylon* (yarn & monofil), Penrith, N.S.W. (tire cord)
Polyester Bayswater *Terylene* (yarn, staple & tow)

GEOFABRICS AUSTRALASIA
Polyester North Albury, N.S.W. *Bidum* (yarn & spun bond)

In addition to the above, **VILENE AUSTRALIA** reportedly produces spunbonded products at Minto, N.S.W.; these are believed to be principally based on artificial (cellulosic) fiber, but some polypropylene may be used.

OLEFIN FIBER

AMOCO CHEMICALS Liverpool, N.S.W. *Poly Bac, Propex* (P yarn & monofil)

BORAL KINNEARS PTY. LTD. Footscray, Victoria *Emu* (P yarn & monofil)

RHEEM AUSTRALIA LTD. Clayton, Victoria *Canvacon, Fabricon, Polytrac, Weedstop, Atlas, Fabcote, Tarpac, Santex* (P yarn, monofil & film)

SARLON INDUSTRIES PTY. LTD. Riverwood, N.S.W. *Sarlon* (E & P yarn & monofil)

OLEFIN FILM FIBER only

TAPEX PTY. LTD. Sydney, N.S.W.

GLASS FIBER

ACI FIBREGLASS, A Unit of ACI Australia, Ltd. Dandenong, Victoria

AUSTRIA

AUSTRIA FASERWERKE G.m.b.H.
Polyester Lenzing *Trevira* (staple)

GLANZSTOFF AUSTRIA A.G. (formerly Enka-Austria)
Rayon St. Pölten (ind & reg yarn)

LENZING A.G. •
Rayon Lenzing *Lenzing Viscose* (staple)
Lenzing *Lenzing Modal* (staple)
Fluoro Lenzing *Lenzing PTFE* (yarn & staple)
Polyimid Lenzing* *P84* (yarn & staple)

OLEFIN FIBER

CHEMIE LINZ A.G. Linz *Asota, Linz-PP-Multifil, Linz-PP-Viles* (P yarn, staple & spunbonded)

LENZING A.G. Lenzing (P yarn)

M. TEUFELBERGER Wels

AUSTRIA (continued)

OLEFIN FILM FIBER, only

SEUTTER Unter Eggendorf

BANGLADESH

ASHUGANJ PETROCHEMICAL COMPLEX
Acrylic — Ashuganj (staple)

BANGLADESH CHEMICAL INDUSTRIES
Rayon — (staple)

KARNAPHULI RAYON AND CHEMICALS LIMITED
Rayon — Chandraghona, Chittagong (reg yarn & staple)

PYLON INDUSTRIES LIMITED
Nylon 6 — Fouzdarhat Industrial Estate, Chittagong *Pylon* (yarn)

BELGIUM

BAYER ANTWERPEN N.V.
Nylon 6 — Antwerpen *Dorix* (staple)

BEAULIEU-NYLON S.A.
Nylon 6 — Kruishoutem, East Flanders (yarn & staple)

FABELTA NINOVE N.V.
Rayon — Ninove, East Flanders (reg yarn)

FABELTA ZWIJNAARDE S.A.
Nylon 66 — Zwijnaarde, East Flanders *Fabelnyl* (yarn)

HOECHST CELANESE
Acetate — Lanaken, Limburg (yarn)
Triacetate — Lanaken (yarn)

OLEFIN FIBER

DELOTEX (P staple)

N.V. FIBRILO Zele, East Flanders (P staple & film)

S.A. LA LOKEROISE Lokeren, East Flanders *Alpha Carpet, Delta Carpet* (P yarn & staple)

OSTEND STORES & ROPEWORKS S.A. Ostend, West Flanders

POLYFIL N.V. (Subsidiary of Beaulieu) Wielsbeke (P yarn)

ROGER VANDEN BERGHE N.V. Desselgem (P yarn)

T.T.C. POLYOLEFINS S.A. Overpelt, Limburg (P monofil)

BELGIUM (continued)

OLEFIN FILM FIBER, only

N.V. JONCKVANSTEEN Passendale

S.A. PHORMIUM Zele, East Flanders

POLYTEXCO S.P.R.L. Beveren, Kortryk

S.A. U.C.O. Ledeberg, Gent

GLASS FIBER

N.V. BAYER S.A. Antwerpen

OWENS-CORNING FIBERGLAS EUROPE S.A. Battice, Liége *Fiberglas*

Artificial (cellulosic) production and capacity data are combined with the Netherlands on pages 112 - 115. Synthetic (noncellulosic) production and capacity data are combined with the Netherlands and Luxembourg under "Benelux" on pages 108 - 111.

BOLIVIA

TEJEDURIAS PLANAS DE HILADOS DE FIBRAS ARTIFICIALES Y SINTETICAS "ESTATEX"
La Paz

TEJIDOS DE PUNTO "FENIX"
La Paz

BRAZIL

ARTEPESCA - S.A. ARTIGOS DE PESCA DO NORDESTE *
Nylon 6 — Igarassu, Pernambuco (monofil)

BANYLSA TECELAGEM DO BRASIL S.A.
Nylon 6 — Aratú, Bahia (yarn)
Polyester — Aratú *Fio Banylsa Poliester* (yarn)

CELBRÁS QÚIMICA E TEXTL S.A.
Acrylic — Camaçari, Bahia *Triana* (staple)
Polyester — Pocos de Caldas, Minas Gerais *Fortrel* (staple)

CIA. NITRO QÚIMICA BRASILEIRA
Rayon — São Miguel Paulista, São Paulo *Viscocel, Novocel* (reg yarn)

COBAFI - CIA. BAHIANA DE FIBRAS
Nylon 6 — Camaçari, Bahia (yarn)
Polyester — Camaçari (yarn)

DE MILLUS S.A. INDUSTRIA E COMÉRCIO
Nylon 6 — Rio de Janeiro *Demilon* (yarn)

DU PONT DO BRASIL S.A.
Spandex — Paulinia, São Paulo *Lycra* (fused multifil)

BRAZIL (continued)

EQUIPESCA - EQUIPAMENTOS DE PESCA S.A.
Nylon 6 — Campinas, São Paulo (monofil)

FIBRA S.A.
Nylon 6 — Americana, São Paulo *Lilion* (yarn)
Polyester — São Paulo (yarn)
Rayon — Americana (reg yarn & staple)

HOECHST DO BRASIL QÚIMICA E FARMACÉUTICA S.A.
Polyester — Osasco *Trevira* (yarn & monofil)

INDÚSTRIAS MATARAZZO DE FIBRAS SINTÉTICAS S.A.
Nylon 6 — São José dos Campos, São Paulo (yarn)

MANAP - MANUFATURA NACIONAL DE PLÁSTICOS •
Nylon 6 — Osasco, São Paulo *Caicara* (monofil)

MARCATTO S.A. IND. E COM. •
Nylon 6 — Jaraguá do Sul, Santa Catarina (monofil)

MAZZAFERRO POLIMEROS E FIBRAS SINTÉTICAS S.A
Nylon 6 — São Bernardo do Campo, São Paulo *Grilon, Trilon* (yarn & monofil)
Polyester — São Bernardo do Campo, São Paulo (monofil)

MONOFIL - CIA. INDUSTRIAL DE MONOFILAMENTOS •
Nylon 6 — São Paulo, São Paulo (monofil)

NOVELSPUMA - ESPUMA DE NYLON S.A.
Nylon 6 — São Paulo, São Paulo (yarn)

POLYENKA S.A.
Polyester — Americana, São Paulo *Diolen* (yarn)

POLYNOR S.A. INDÚSTRIA E COMÉRCIO DE FIBRAS SINTÉTICAS DA PARÁIBA
Polyester — João Pessoa, Paraiba *Amilon, Polynor* (yarn & staple)

RHODIA S.A.
Acetate — Santo André, *Albamecha,* (tow)
Acrylic — São José dos Campos, São Paulo *Crylor* (staple)
Nylon 66 — Santo André *Dropnyl, Rhodianyl* (yarn & staple)
São Bernardo do Campo, São Paulo *Celtral BCF* (yarn)
Polyester — Santo André *Dropgal-Tergal, Tergal* (yarn & staple)
São José dos Campos *Bidim* (spunbonded)
São Bernardo do Campo (yarn)

RHODIA NORDESTE S.A.
Polyester — Cabo, Pernambuco *Tergal* (staple)

SEARA IND. TÉXTIL LTDA. •
Nylon 6 — Londrina, Paraná (monofil)

SPUMAR S.A. INDÚSTRIA E COMERCIO •
Nylon 6 — São Paulo (yarn)

BRAZIL (continued)

OLEFIN FIBER

ARTEPESCA - S.A. ARTIGOS DE PESCA DO NORDESTE
Igarassu, Pernambuco (E & P monofil)

BRASIL VISCOSE S.A. Jundiapeba, São Paulo (P staple)

ETRÚRIA S.A. INDÚSTRIA DE FIBRAS E FIOS SINTETICOS
Mairinque, São Paulo (P staple)

FADEMAC - FABRICA DE MATERIAIS DE CONSTR. S.A.
Jacarei, São Paulo (P staple)

FITESA - FIÁÇAO TÉXTIL DE EMBALAGENS PLÁSTICAS S.A. Guaiba, Rio Grande do Sul (P staple) & Porto Alegre, Rio Grande do Sul (P film)

INYLBRA S.A. TAPETES E VELUDOS Diadema, São Paulo (P staple)

MANAP - MANUFATURA NACIONAL DE PLÁSTICOS
Osasco, São Paulo (P monofil)

MARCATTO S.A. IND. E COM. Jaragua do Sul, Santa Catarina (E & P monofil)

MONOFIL - CIA. INDUSTRIAL DE MONOFILAMENTOS
São Paulo, São Paulo (P monofil)

SEARA IND. TÉXTIL LTDA. Londrina, Paraná (E & P monofil)

SPUMAR S.A. INDÚSTRIA E COMÉRCIO São Paulo, *Fibrilene, Polylene, Polyplan, Prolene* (P yarn, staple & film)

TAPETELENE - INDÚSTRIA S.A. Pajucara/Maramguape, Ceaŕe (P staple)

TINTORIA S.A. - BENEFICIAMENTO DE FIO (P yarn)

OLEFIN FILM FIBER, only

BRASMEN TOL CACAPAVA S.A. Cacapava, São Paulo

CACIQUE DE EMBALAGENS S.A. INDÚSTRIA E COMÉRCIO
Londrina, Paraná

C.A.T.A. - CIA. AMAZONIA TÉXTIL DE ANIAGEM S.A. Belém, Pará

CIA. FAB. YOLANDA S.A. Récife, Pernambuco

CIA. JAUENSE INDUSTRIAL Jau, São Paulo

CIA. UNIÃO MANUFATORA DE TECIDOS Rio de Janeiro

DICOPLAST S.A. INDÚSTRIA E COMÉRCIO DE PLASTICOS
Presidente Prudente, São Paulo

EMPLA - EMBALAGENS PLÁSTICAS S.A. Rio de Janeiro

BRAZIL (continued)

FIBRASA IND. E COM. DE FIOS E EMBALAGENS S.A. Espirito Santo

FIBROTEX TECELAGEM DE FIBRAS S.A. São Paulo

IMPLASA - INDÚSTRIA DE PLÁSTICOS ZANIOLO S.A. São José dos Pinhais, Paraná

INDÚSTRIA TÉXTIL TSUZUKI LTDA. Suzano, São Paulo

IPLAC DO BRASIL S.A. PLÁSTICOS Fortaleza, Ceará*

NOVOPLAST IND. E COM. DE PLÁSTICOS Nova Odessa, São Paulo

PLABASA - PLÁSTICOS DA BAHIA S.A. Salvador, Bahiá

PLASMINAS - PLÁSTICOS MINAS LTDA. Tres Pontas, Minas Gerais

PLÁSTICOS DO PARANÁ LTDA. Londrina, Paraná

PLÁSTICOS LINIL S.A. Récife, Pernambuco

PLÁSTICOS INDÚSTRIA DE EMBALAGENS LTDA. Campinas, São Paulo

QUALITAS IND. E COM. LTDA. São Paulo

SACOPLAST/PLANOSA - PLÁSTICOS DO NORDESTE S.A. Natal, Rio Grande do Norte

GLASS FIBER

OCFIBRAS Rio Claro, São Paulo *Fiberglas*

BULGARIA

KOMBINAT "DIMITAR DIMOV" *

Acrylic	Burgas *Bulana* (staple)
Nylon 6	Vidin *Vidlon* (yarn)
Polyester	Yambol *Yambolen* (yarn, staple & tow)

KOMBINAT "SVILOSA"

Rayon	Svishtov (reg yarn & staple)

OLEFIN FIBER

KOMBINAT "DIMITAR DIMOV" Yambol (P staple)

CANADA

BASF FIBRES INC.

Nylon 6	Amprior, Ontario *Zefran* (yarn & staple)

CELANESE CANADA INC.

Acetate	Drummondville, Quebec (yarn)
Polyester	Millhaven, Ontario *Fortel* (yarn, staple, tow & fiberfill)

CANADA (continued)

COURTAULDS (CANADA) LIMITED

Rayon	Cornwall, Ontario (staple)

DU PONT CANADA INC. *

Nylon 66	Kingston, Ontario *Antron, Cantrece, Du Pont* (yarn, staple & tow)
Spandex	Maitland *Lycra* (fused multifil)

FIRESTONE TEXTILES CO.-A DIVISION OF FIRESTONE CANADA LTD.-LTEE

Nylon 6	Woodstock, Ontario (yarn & monofil)

OLEFIN FIBER

AMOCO FABRICS & FIBERS CO. Brantford & Hawkesbury, Ontario, St. Jean, Quebec *Protel* (P yarn, staple, E & P monofil & P film)

CALKO MILLS LTD. Rivière du Loup, Quebec (P monofil)

CANADA WESTERN CORDAGE CO., LTD. New Westminster, B.C. (P monofil)

DOON TWINES LTD. Kitchener, Ontario (P yarn, monofil & staple)

DU PONT CANADA INC. North Bay, Ontario (P film)

GUELPH TWINES LTD. Guelph, Ontario (P monofil & film)

HERCULES INC. Iberville, Ontario (staple)

NOVASTRAND St. John, New Brunswick (P monofil)

POLI-TWINE CORP. LTD. Belleville, Ontario & Saskatoon, Saskatchewan *Polytie, PolyTwine, Spiralok* (P monofil)

SCHLEGEL COMPANY CANADA Oakville (P monofil)

STRUDEX FIBRES LTD., DIVISION OF KRAUS CARPET MILLS LTD. Waterloo (P yarn & staple - captive)

OLEFIN FILM FIBER only

FIBERWORLD, LTD. Hawkesbury, Ontario

POLYMER INTERNATIONAL (N.S.) LTD. Truro, N.S.

GLASS FIBER

FIBERGLAS CANADA LIMITED Guelph, Ontario *Fiberglas*

CHILE

GOODYEAR DE CHILE, S.A.I.C.

Nylon 6	Maipú, Santiago (yarn & monofil)

INDUSTRIAS QUIMICAS GENERALES S.A.

Rayon	Quillota, Valparaiso (ind yarn & staple)

CHILE (continued)

LANERA AUSTRAL S.A.
Polyester — Santiago (yarn, staple & tops)

MANUFACTURAS SUMAR S.A.
Nylon 6 — El Pinar 172, Santiago *Crilobal* (yarn)
Polyester — El Pinar 172, *Poligal* (yarn & staple)

QUIMICA INDUSTRIAL S.A.
Polyester — Maipú, Santiago *Polycron* (staple & tops)

CHINA, PEOPLE'S REPUBLIC OF

Although reliable information on locations of manufactured fiber plants in the People's Republic of China is not available, every effort has been made to make the following listing as complete as possible.

RAYON and/or ACETATE PLANTS reported at:
Amoy, Antung, Canton, Foshan, Kirin, Nanchang, Nanking, Paoting and Shanghai.
NYLON PLANTS reported at:
Beijing; Changsha*, Hsinhsiang, Paoting Province; Jiangsu*, Jinzhou; Liaoyang; Pingdings; Shanghai; Shanyi; Sian; Sichuan; Sining; Tianjin, Yeuyang, Hunan Province* and Zhenjiang.
POLYESTER PLANTS reported at:
Beijing; Changzhou, Jiangsu Province; Fangshen, Beijing Province; Guangdong Province; Guangzhou, Canton Province; Hangchow; Heilongjiang; Henan*; Jinshan, Shanghai Province; Liaoyang; Nantong; Nanjing, Jiangsu Province; Shanghai; Sichuan; Taiyuan; Tianjin; Tientsin; Xiamen, Funjion Province; Xinhu; Yizheng and Zhenjiang.
ACRYLIC PLANTS reported at:
Anquing, Anhui Province; Chenchiang, Harbin Province; Daquing; Fushun; Lanzhou; Lude; Maoming; Qinhuangdao; Shanghai and Zibo.
SYNTHETIC (NONCELLULOSIC) PLANTS reported at:
Beijing (vinal); Canton (vinyon); Chunking (vinyon); Foochow (vinyon); Lanzhou (olefin & vinal); Shanghai (vinyon); Shengli (vinyon) and Tientsin (vinyon).

The following three plants have been reported as producing glass fiber: Shanghai Glass Fiber Plant, Shanghai Tungfanghung Glass Fiber Plant and Tientsin Glass Fiber Plant.

COLOMBIA

COLTEFIBRAS S.A.
Polyester — Igatui, Antioquia* (yarn & staple)

ENKA DE COLOMBIA S.A.
Nylon 6 — Girardota, Antioquia *Enkalon* (yarn)
Polyester — Girardota *Terlenka* (yarn & staple)

FABRICA DE HILAZAS VANYLON S.A.
Nylon 6 — Barranquilla, Atlántico *Vanylon* (yarn & monofil)

POLIMEROS COLOMBIANOS S.A.
Polyester — Medellin, Antioquia *Primel* (yarn, staple, tow & tops)

COLOMBIA (continued)

QUIMICA INDUSTRIAL (formerly CELANESE COLOMBIANA, S.A.)
Acetate — Yumbo, near Cali, Valle del Cauca (yarn)
Polyester — Yumbo (yarn & staple)

QUINTEX PLANTA DE SABANETA (formerly CELANESE COLOMBIANA, S.A.)
Nylon 6 — Sabaneta, Antioquia *Nylocel* (yarn)

ZYLETTE (LAFAYETTE)
Polyester — Bogotá (yarn)

OLEFIN FILM FIBER, only

COMPANIA NACIONAL DE EMPAQUES S.A. Medellin

PETROQUIMICA Colombiana, Cartagena,*

POLYMER DE COLOMBIA S.A. Cartagena

COSTA RICA

OLYMPIC FIBERS, S.A.
Polyester — San Antonio de Belén (yarn) (idle)

CUBA

INDUSTRIAS CONSOLIDADAS DE MATANZAS, S.A.
Rayon — Matanzas (ind & reg yarn & staple)

CYPRUS

OLEFIN FIBER

LORDOS POLYSAC (LIMASSOL) LIMITED Limassol (P film)

CZECHOSLOVAKIA

CHEMICKÉ ZÁVODY JURAJA DIMITROVA, N.P.* (GEORGE DIMITROV CHEMICAL WORKS, NATIONAL CORP.)
Rayon — Bratislava, Slovakia (reg yarn)

CHEMLON, N.P. (CHEMLON, NATIONAL CORPORATION)
Nylon 6 — Humenné, Slovakia *Chemlon* (yarn)

CHEMOPETROL
Rayon — Neratovice (yarn)

CHEMOSVIT, N.P. (CHEMOSVIT, NATIONAL CORPORATION) *
Nylon 6 — Svit, Slovakia *Svitontex* (yarn & staple)
Rayon — Svit (reg yarn)

CZECHOSLOVAKIA (continued)

SEVEROCESKÉ CHÉMICKE ZÁVODY, N.P. (NORTH BOHEMIAN CHEMICAL WORKS, NATIONAL CORP.)

Rayon	Lovosice, Bohemia (ind yarn)

SILON, N.P. (SILON, NATIONAL CORPORATION)

Nylon 6	Planá nad Luznici, Bohemia *Silon* (yarn & monofil)
Polyester	Planá nad Luznici *Tesil, Tevyro, Velana* (staple, tow & fiberfil)

SLOVENSKÝ HODVÁB, N.P. (SLOVAKIAN FILAMENT YARN, NATIONAL CORPORATION)

Polyester	Senica nad Myjavou, Slovakia *Slotera* (yarn)
Rayon	Senica nad Myjavou (reg yarn)

SPOLANA, N.P. (SPOLANA, NATIONAL CORPORATION)

Rayon	Neratovice, Bohemia (staple)

OLEFIN FIBER

CHEMICKÉ ZÁVODY JURAJA DIMITROVA, N.P. Bratislava *Istrona, Labran, Nobelex* (P yarn & staple)

CHEMOSVIT, N.P. Svit *Prolen, Texizol* (P yarn & spunbonded)

JUTA, N.P. Úpice, Bohemia (P spunbonded)

OLEFIN FILM FIBER, only

JUTA, N.P. Adamov, Moravia and Bernartice u Trutnova, Dvur Králové, Jilemnice & Úpice, Bohemia

POVAZSKÉ CHÉMICKE ZÁVODY, N.P. Zilina, Slovakia

TECHNOLEN, N.P. Lomnice nad Popelkou, Bohemia

GLASS FIBER

SKLOPLAST, N.P. (SKLOPLAST, NATIONAL CORPORATION) Trnava, Slovakia (yarn, chopped strand & mat)

VERTEX, N.P. (VERTEX, NATIONAL CORPORATION) Litomysl, Bohemia (yarn, roving, mat & staple yarn)

DENMARK

OLEFIN FIBER

A/S FIBERTEX Aalborg (P staple)

DANAKLON A/S Varde (E & P staple & film), *Krenit* (P reinforcing fiber) *Soft* 71 (P fiber non-woven)

ESBJERG THERMOPLAST, (a division of Vita Polymer Denmark A/S) Esbjerg (E & P monofil)

DENMARK (continued)

OLEFIN FILM FIBER, only

R.F.W. PLAST-INDUSTRI A/S Vejle (P film)

ROBLON A/S Frederikshavn (P film)

ECUADOR

ECUATORIANA DE TEJIDOS DE PUNTA - ECUAPUNTO CIA. LTDA.

Polyester	Punta (yarn)

ENKADOR S.A.

Polyester	Sangolqui, Pichincha (yarn)

FIBRATEX S.A.

Polyester	Guayaquil, Guayas (yarn)

EGYPT

ESTABLISSEMENTS INDUSTRIELS POUR LA SOIE ET LE COTON S.A.A. (E.S.C.O.)

Rayon	Cairo (reg yarn)

MISR AL-AMIRIYA INDUSTRIAL FIBRE CO.

Polyester	Amiriya (yarn* & staple)

SOCIETE MISR POUR LA RAYONNE S.A.A. (MISR RAYON CO.)

Nylon 6	Kafr-el-Dawar *Misrnylon* (yarn), *Misrnylon* (staple)
Polyester	Kafr-el-Dawar *Polymisr* (yarn)
Rayon	Kafr-el-Dawar (reg yarn & staple)

EL SALVADOR

OLEFIN FIBER

FILAMENTOS Y PERFILES, S.A. (FILPERSA) San Salvador *Duraplen* (E & P monofil)

SALVAPLASTIC, S.A. San Salvador (P monofil)

FINLAND

FINEFIBRE OY

Nylon 66	Tornio (yarn)

KEMIRA OY SATERI

Rayon	Valkeakoski (staple)

OLEFIN FILM FIBER, only

MANILLA OY Rymättylä

PIIPPO OY Lempäälä

FINLAND (continued)

GLASS FIBER

A. AHLSTRÖM OY GLASSFIBRE Karhula *Kuitulasi* (roving & mat)

FRANCE

CELLATEX (a subsidiary of Rhône-Poulenc-Textile)
Rayon — Givet, Ardennes; Isère (reg yarn)

COURTAULDS S.A.
Acrylic — Pont du Leu, Coquelles, Pas-de-Calais *Courtelle* (staple)

NYSAM S.A.
Nylon 6 — St. Quentin, Aisne *Lilion* (yarn)

RHÔNE-POULENC-FIBRES (a subsidiary of Rhône-Poulenc-Textile)
Nylon 66 — Albi, Tarn; St. Laurent-Blangy, Pas-de-Calais, St. Quentin, Aisne & Valance, Drôme *Nylfrance* (yarn & staple)
Polyester — Gauchy, Aisne & Valence *Bidim* (spunbonded), *Tergal* (yarn & staple)

RHOVYL (a subsidiary of Rhône-Poulenc-Textile)
Vinyon — Tronville-en-Barrois, Meuse *Clévyl, Rhovyl, Thermovyl* (yarn & staple)

SOCIETE CHOMARAT
Nylon 6 — Mariac (yarn - captive)

OLEFIN FIBER

PLASTIQUE DE ROUBAIX Roubaix (P film & staple)

SODOCA FABRICATION DE NONTISSES SYNTHETIQUES S.A.R.L. Neuf Brisach, Haut-Rhin (P spunbonded)

OLEFIN FILM FIBER only

ETS. AMMANN & CIE. Saint-Louis

ETS. BATAILLE Rosendael

BIHR FRERES S.A. Xertigny

BOUSSAC SAINT FRERES S.A. Flixecourt

SEINE & LYS Paris

GLASS FIBER

OWENS-CORNING FIBERGLAS FRANCE S.A. L'Ardoise, Gard *Fiberglas*

VETROTEX SAINT-GOBAIN Chambéry, Savoie-Fils et Fibres de Renforcement *Vetrotex*

GERMAN DEMOCRATIC REPUBLIC
DEUTSCHE DEMOKRATISCHE REPUBLIK (EASTERN)

(Those facilities indicated by # are part of the trust VEB Chemiefaserkombinat Schwarza "Wilhelm Pieck".)

CHEMIEFASERWERK "FRIEDRICH ENGELS" #
Acrylic — Premnitz, Krs. Rathenow *Wolpryla* (staple)
Nylon 6 — Premnitz *Dederon* (staple)
Polyester — Premnitz *Grisuten* (staple)
Rayon — Premnitz (reg yarn)

CHEMIEFASERWERK "WILHELM-PIECK-STADT" GUBEN #
Nylon 6 — Guben *Dederon* (yarn & monofil)
Polyester — Guben *Grisuten* (yarn)

KUNSTSEIDENWERK "CLARA ZETKIN, ELSTERBERG" #
Rayon — Elsterberg, Krs. Greiz (reg yarn)

SACHSISCHES KUNSTSEIDENWERK "SIEGFRIED RADEL" #
Polyester — Pima" (yarn)
Rayon — Pima (ind, reg & cupra yarn)

SACHSISCHE ZELLWOLLE #
Rayon — Plauen (staple)

SPINNSTOFFWERK "OTTO BUCHWITZ" #
Rayon — Glauchau (staple)

VEB CHEMIEFASERKOMBINAT SCHWARZA "WILHELM PIECK"
Nylon 6 — Schwarza, Krs. Rudolstadt *Dederon* (yarn)
Rayon — Schwarza (staple)

VEB FILMFABRIK FOTOCHEMISCHES KOMBINAT
Acrylic — Wolfen, Krs. Bitterfeld *Wolpryla* (staple)
Rayon — Wolfen (ind yarn & staple)
Vinyon — Wolfen *Piviacid* (staple)

ZELLSTOFF-UND ZELLWOLLWERKE WITTENBERGE #
Rayon — Wittenberge (staple)

GLASS FIBER

VEB GLASSEIDENWERK *Oschatz Glasseidengewebe, Glasseiden-Roving, Glasseiden-Stapelbindermatten, Glasseiden-Twist, Glasseiden-Zwirn, Roving-Gewebe*

GERMANY, FEDERAL REPUBLIC OF
BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

AKZO FIBERS AND POLYMERS DIVISION, ENKA A.G.
Nylon 6/66 — Obernburg *Enkalon, Enka Nylon* (yarn)
Polyester — Oberbruch & Obernburg *Diolen* (yarn)
Rayon — Kelsterbach, Oberbruch & Obernburg *Cordenka, Enka Viscose* (ind & reg yarn)

BAYER A.G.
Acrylic — Dormagen *Bayer-Textilfaser Dralon* (yarn & staple)
Nylon 6 — Dormagen *Perlon-Draht* (monofil)
Spandex — Dormagen *Bayer-Textilfaser Dorlastan* (fused multifil)

GERMANY, FEDERAL REPUBLIC OF (continued)
BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

BOLTA WERKE G.m.b.H.
Saran — Nürnberg *Bolta* (monofil)

DEUTSCHE ICI G.m.b.H.
Nylon 66 — Östringen *Timbrelle, Tactel* (yarn & staple)

DU PONT DE NEMOURS (DEUTSCHLAND) G.m.b.H.
Nylon 66 — Uentrop-Hamm (yarn & staple)
Polyester — Uentrop-Hamm (staple & fiberfill)

E. HAHL KG •
Nylon 6 — Munderkingen (staple)

FASERWERKE LINGEN G.m.b.H.
Acrylic — Lingen *Bayer-Texilfasern Dralon* (staple)

HOECHST A.G.
Acrylic — Kelheim/Donau *Dolan* (staple)
Polyester — Bad Hersfeld, Hessen & Bobingen/Augsburg-land *Trevira* (yarn, staple & spunbonded) *Trevira-Draht* (monofil)
Rayon — Kelheim/Donau (staple)

KUNERT
Nylon 66 — Deggendorf (yarn)
Polyester — Deggendorf (yarn)

LUTRAVIL SPINNVLIES •
Nylon 6 — Kaiserslautern *Lutrabond* (spunbonded)
Polyester — Kaiserslautern *Lutradur* (spunbonded)

NORDDEUTSCHE FASERWERKE G.m.b.H.
Nylon 6/66 — Neumünster *SIKS NYLON* (yarn), *SIKS PERLON* (yarn & staple)
Polyester — Neumünster *Avitron* (yarn)

PHOENIX GUMMIWERK A.G.
Saran — Hamburg/Harburg *Harlan* (monofil)

HEINRICH REINHOLD KG •
Nylon 6 — Selbitz, Bayern (staple)

RHÔNE-POULENC - RHODIA A.G.
Acetate — Freiburg/Br. *RHODIA FILTER TOW* (tow)
Nylon 6.6 — Freiburg/Br. & Rottweil a. N/Württ. *RHODIA MERYL, RHODIA NYLON 6.6, RHODIA SPORT* (yarn & staple)
Polyester — Freiburg/Br. *RHODIA COMFORTO, RHODIA PONTELLA, SETILA, TERGAL* (yarn)

SPINNSTOFFABRIK ZEHLENDORF A.G.
Polyester — Berlin-Zehlendorf *Trevira* (yarn & staple)

WACKER-CHEMIE G.m.b.H.
Vinal — München-Burghausen *Wacker MP-Faser* (staple)

GERMANY, FEDERAL REPUBLIC OF (continued)
BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

OLEFIN FIBER

J. F. ADOLFF A.G. Backnang (P film)

AMOCO FABRICS & FIBERS CO., DIVISION OF AMOCO (DEUTSCHLAND) G.m.b.H. Gronau (P film & staple)

J. H. BENECKE G.m.b.H. Peine *Corovin* (P spunbonded)

R. J. J. RUDOLF BILLERMANN KG Emsdetten (P yarn & staple)

CHEMISCHE WERKE HÜLS A.G. Marl, Kreis Recklinghausen, Westphalia *Vestolan* (E & P monofil)

DYNAMIT NOBEL A.G. Troisdorf, Bez. Köln *Trofil* (E & P monofil & tow)

DEUFIL Bergkamen (P yarn)

FASERWERKE BOTTROP G.m.b.H. Bottrop (P staple)

FÜSSENER TEXTIL A.G. Füssen (P film)

GEO. GLEISTEIN & SOHN Bremen-Vegesack (P film & monofil)

E. HAHL KG Munderkingen (P monofil)

RUDOLF HILLER KG (P monofil)

LUTRAVIL SPINNVLIES Kaiserslautern *Lutrasil* (P spunbonded)

HEINRICH REINHOLD KG Selbitz/Bayern (P staple)

STEEN Hamburg (P staple)

WESTFALIA SPINNEREI U. KUNSTOFFWERK SCHEM KG Minden (P monofil & film)

OLEFIN FILM FIBER, only

BAUMHÜTER G.m.b.H. Wiedenbrück

BREMER WOLL-KAMMEREI Bremen-Blumenthal

ERNST JAEGER Düsseldorf-Reisholz

HEINZ G. JUNEMANN (NORDHESSISCHE HAARWARENFABRIK) Felsberg

KUSGA KUNSTOFFGARNE G.m.b.H. Mainz

POLYDRESS PLASTIC G.m.b.H. Michelstadt

POLYUNION KUNSTOFFWERK Mesum

SCHILGEN Emsdetten

SPOHN G.m.b.H Freiburg

GERMANY, FEDERAL REPUBLIC OF (continued)
BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

B. T. F. TECKLENBORG & CO. Bremen-Grohn

DR. KARL WETEKAM & CO. Melsungen

GLASS FIBER

GEVETEX-TEXTILGLAS G.m.b.H. Aachen & Herzogenrath
Fiberglas Vetrotex

SCHULLER GLASWERK Westheim

GREECE

ETMA S.A.
Nylon 6/66 — Athens (yarn)
Rayon — Athens (reg yarn)

HELLENIC SYNTHETICS INDUSTRY
Polyester — Kalogreza (yarn)

POLYETMA LTD.
Polyester — Athens (yarn)

VOMVICRYL S.A. (affiliate of "VOMVIX" S.A.)
Acrylic — Stylis, near Lamia (yarn, staple, tow & tops)

"VOMVIX" S.A.
Nylon 6/66 — Athens (yarn)
Polyester — Athens (yarn)

OLEFIN FIBER

VIOFARM Argos (P staple)

OLEFIN FILM FIBER, only

ARIPLAST S.A. Athens

BIOSISAL Athens

DESSILA Piraeus

ELVISAK Athens

MARINE ROPE Athens

OLYMPIC ROPES Piraeus

SISAL ROPERY Salonika

C. VELLIS HEIRS S.A. Piraeus

VESY S.A. SYNTHETIC MATERIALS INDUSTRY Piraeus

GUATEMALA

HILOS SINTETICOS CENTROAMERICANOS, S.A.
Nylon 6 — San José Pinula, Guatemala (yarn) (idle)

OLEFIN FIBER

CORDELERIA LA RAPIDA Guatemala, Guatemala (P monofil)

HONDURAS

OLEFIN FIBER

POLYMER (subsidiary of United Brands) San Pedro Sula (P film)

HUNGARY

DANUFIL
Rayon — Nyergesújfalu* (staple)

MAGYAR VISCOSAGYÁR (Hungarian Viscose Factory) *
Acrylic — Nyergesújfalu *Crumeron* (staple)
Nylon 6 — Nyergesújfalu *Danamid* (yarn & staple)
Rayon — Nyergesújfalu *Crumeron* (staple)

OLEFIN FIBER

GRABOPLAST Győr (P staple)

KENDER JUTA TEXTILIPARI V. Budapest (P film)

KENDERFONÓ ÉS SZÖVÖIPARI V. SZEGED Szeged (P film)

MAGYAR VISCOSAGYÁR Nyergesújfalu *Popril* (P staple)

SOPRONI SZÖNYEGGYÁR Sopron *Sopilen* (P yarn)

TISZA CHEMICAL COMBINE Lenin Varas (P staple)

INDIA

ACME INVESTMENTS LTD.
Nylon 6 — Panki Industrial Area, Kanpur* (yarn)

THE AHMEDABAD MFG. & CALICO PRINTING CO. LTD. CALICO POLYESTER FIBRE DIV.
Polyester — Vadodara, Gujarat *Ilacron* (staple)

ANDHRA PRADESH RAYONS LTD.
Rayon — Kamalapuram, Warangal District, Andhra Pradesh* (staple)

THE BARODA RAYON CORPORATION LIMITED
Nylon 6 — Udhna, Gujarat *Snialon* (yarn)
Polyester — Udhna *Sniater* (yarn)
Rayon — Udhna (reg yarn)

INDIA (continued)

BONGAIGAON REFINERY AND PETROCHEMICALS LTD.
Polyester — Goalpara, Assam* (staple)

CENTURY ENKA LIMITED
Nylon 6 — Bhosari, Pune, Maharashtra* *Enkalon* (yarn)
Polyester — Bhosari (yarn)

CENTURY RAYON (Prop.: The Century Spg. & Mfg. Co. Ltd.)
Rayon — Kalyan, near Bombay, Maharashtra (ind & reg yarn)

ESTER INDIA LTD.
Polyester — Khatima, Nainital, Uttar Pradesh (yarn)

GARWARE NYLONS LIMITED
Nylon 6 — Pimpri, Pune, Maharashtra* *Garware* (yarn & monofil)
Polyester — Pimpri (yarn)

THE GRASIM INDUSTRIES LTD.
Rayon — Birlagram, Nagda, Madhya Pradesh & Birlakootoam, Mavoor, Kerala (staple)
Polyester — Rajgarh*, Madhya Pradesh (staple)

GUJARAT NYLONS LTD.
Nylon 6 — Bharuch, Gujarat (yarn)

HARYANA PETROCHEMICALS LTD.
Polyester — Rewari, Haryana* (yarn)

ICI INDIA LTD.
Polyester — Thane, Maharashtra (staple)

INDIA POLYFIBRES, LTD.
Polyester — Barabanki & Lucknow, Uttar Pradesh (staple)

INDIAN EXPLOSIVES LTD.
Polyester — Thane, near Bombay, Maharashtra *Terene* (staple)

INDIAN ORGANIC CHEMICALS LIMITED
Polyester — Manali, Madras, Tamil Nadu *Futura* (yarn & staple)

INDIAN PETROCHEMICALS CORP. LTD.
Acrylic — Vadodara, Baroda, Gujarat *Cashmilon* (staple)

THE INDIAN RAYON & INDUSTRIES LIMITED
Rayon — Veraval, Gujarat (reg yarn)
Polyester — Broach* (yarn)

J.K. RAYON, J.K. PURI
Rayon — Kanpur, Uttar Pradesh (reg yarn)

J.K. SYNTHETICS LIMITED
Acrylic — Kota, Rajasthan *Jayacrylic* (staple)
Nylon 6 — Kota *Jayanka, Jaycord, Jaykalon* (yarn, monofil & staple)
Polyester — Calcutta, Kota, Orissa* *Jakaylene* (yarn & staple)

INDIA (continued)

JAGATJIT COTTON TEXTILE MILLS LTD.
Nylon 6 — Hoshiarpur, Punjab (yarn)
Polyester — Hoshiarpur (staple)

KARNATAKA STATE INDUSTRIAL DEVELOPMENT CORPORATION LIMITED
Nylon 6 — Karnataka* (yarn)
Polyester — Karnataka* (yarn & staple)

KESORAM RAYON (Prop.: Kesoram Industries and Cotton Mills Ltd.)
Rayon — Triveni, Hooghly, West Bengal (reg yarn)

L ML FIBRES LTD.
Nylon 6 — Kanpur (yarn)

MODIPON LIMITED
Nylon 6 — Modinagar, Uttar Pradesh *Modipon* (yarn)
Polyester — Modinagar (yarn)
Rayon — (staple*)

THE NATIONAL RAYON CORPORATION LIMITED
Nylon 6 — Mohane, Kalyan, Maharashtra* *N.R.C* (yarn)
Rayon — Mohane, Kalyan (ind & reg yarn)

NIRLON SYNTHETIC FIBRES & CHEMICALS LIMITED
Nylon 6 — Goregaon, Bombay, Maharashtra *Nircord, Nirlon* (yarn & monofil)
Polyester — Bombay *Nirester* (yarn)

ORISSA SYNTHETICS LTD.
Polyester — Baulpur Village, Demkanal, Orissa* (staple)

ORKAY SILK MILLS PVT. LTD.
Polyester — Patalganga, Maharashtra* (yarn)

PARASRAMPURIA SYNTHETICS LTD.
Polyester — Alwar, Rajasthan* (yarn)

PASUPATI ACRYLON LIMITED
Acrylic — Moradabad, Uttar Pradesh* (staple)

PETROFILS CO-OPERATIVE LIMITED
Nylon — Valia, Bharuch, Gujarat (yarn)
Polyester — Vadodara, Gujarat (yarn)

PRADESHIYA INDUSTRIAL INVESTMENT CORPORATION OF UTTAR PRADESH
Polyester — Uttar Pradesh* (yarn)

PUNJAB STATE INDUSTRIAL DEVELOPMENT CORP. LTD.
Acrylic — Punjab (staple)
Polyester — Punjab (staple)

RAYMOND SYNTHETICS
Polyester — (yarn*)

RELIANCE INDUSTRIES LTD.
Polyester — Patalganga, Maharashtra (yarn & staple*)

INDIA (continued)

SHREE SYNTHETICS LIMITED
Nylon 6 — Ujjain, Madhya Pradesh *Shreelon* (yarn)
Polyester — Ujjain *Shreester* (yarn)

SHRI RAM FIBRES LIMITED
Nylon 6 — Manali, Madras, Tamil Nadu *Tufcord* (yarn)

SHRIRAM RAYONS
Rayon — Kota, Rajasthan (ind yarn)

THE SIRSILK LIMITED
Acetate — Sirpur-Kaghaznagar, Andhra Pradesh (yarn & staple)

SOUTH INDIA VISCOSE LIMITED
Rayon — Sirumughai, near Mettupalayam, Tamil Nadu (reg yarn & staple)

STERLING STEEL WIRES, LTD.
Nylon 6 — Chohal, Hoshiarpur, Punjab (yarn)
Polyester — Chohal (yarn)

STRETCH FIBRES (INDIA) LIMITED
Nylon 6 — Nagpur, Maharashtra *SF* (yarn)

SWADESHI POLYTEX LIMITED
Polyester — Kavinagar, Gaziabad, Uttar Pradesh *Jailene* (staple)

THAPAR DU PONT LTD.
Nylon — Goa* (ind yarn)

THE TRAVANCORE RAYONS LIMITED
Rayon — Rayonpuram, Kerala (reg yarn)

TUNGABHADRA FIBRES LTD.
Rayon — Hosahalli Village, Karnataka (staple)

OLEFIN FIBER

AMITABH TEXTILE MILLS LTD. Dehra Dun, Uttar Pradesh* (P yarn)

ANIL KUMAR JAIN Ankleshwar, Gujarat* (P yarn)

GUJARAT FILAMENTS CORPORATION LTD. Baroda, Gujarat* (P yarn)

GUPTA NEEDLE INDUSTRIES PVT. LTD. Dharuhera, Haryana* (P yarn)

INDO SYNTHETICS CORP. (P yarn*)

J.K. BHAGAT Bhiwand, Alwar, Rajasthan* (P yarn)

KALYANI ASBESTOS CEMENT PVT. LTD. Kalol, Gujarat* (P yarn)

NEOMER LIMITED Baroda, Panchmahal, Gujarat *Proplon* (P staple)

NIAGARA INTERNATIONAL (P yarn*)

INDIA (continued)

POLYPROP INDUSTRIES Dharuhera, Haryana* (P yarn)

POLYPROPYLENE INDIA, LTD. Uttar Pradesh* (P yarn)

RAJASTHAN PETROSYNTHETICS LTD. Udaipur, Rajasthan* (P yarn)

RAJENDRA V. PATEL Cambay, Gujarat* (P yarn)

SANJEEV SHRIYA Uttar Pradesh* (P yarn)

INDONESIA

INDONESIA PENELITIAN SELULOSA (Cellulose Research Institute)

P.F. FIBRES e CHEMICALS
Nylon — (yarn)

P.T. BERKAT INDAH AGUNG
Rayon — Tangerang, West Java* (staple)

P.T. FILAMENDO SAKTI
Nylon 6 — Tangerang* (yarn)

P.T. INDO-BHARAT RAYON
Rayon — Desa Cilangkap, Purwakarta (staple)

P.T. INDO RAMA SYNTHETICS
Rayon — Jatiluhur-Purwakarta (staple)
Acrylic — Jatiluhur-Purwakarta (staple)
Polyester — Jatiluhur-Purwakarta* (staple)

P.T. INDONESIA ASAHI CHEMICAL
Nylon 6 — Jatiluhur, Purwakarta, West Java (yarn)

P.T. INDONESIA TORAY SYNTHETICS
Nylon 6 — Tangerang, West Java (yarn)
Polyester — Tangerang (staple)

P.T. INDUSTRI SANDANG I
Polyester — Tangerang* (staple)

P.T. INDUSTRI SANDANG II
Rayon — South Sumatra* & West Kalimantan* (staple)

P.T. INTI
Rayon — West Kalimanton* (staple)

P.T. INTI INDAH RAYON UTAMA
Rayon — Sosorladang, N. Sumatra* (yarn)

P.T. KUMA FIBER (P.T. Kuraray Manungga! Fibre Industries)
Polyester — Cikokol, Tangerang, West Java (staple)

P.T. PAN ASIA SYNTHETIC ABADI
Polyester — Bandung (yarn & staple*)

P.T. POLYSINDO EKA PERKASA
Polyester — Kaliwungu, Kendal, C. Java (yarn & staple)

INDONESIA (continued)

P.T. SHINTA-INDAH DJAYA
Nylon 6 — Tangerang, West Java (yarn)
Polyester — Tangerang *Shinta* (yarn)

P.T. SOUTH PACIFIC VISCOSE
Rayon — Purwakarta, West Java (staple)

P.T. SUSILIA INDAH SYNTHETIC FIBRES INDUSTRIES
Polyester — Djakarta*, Tangerang, West Java (yarn & staple)

P.T. TEXMACO TAMAN SYNTHETIC
Polyester — Kaliwungu Kendal, West Java (yarn)

P.T. TIFICOR (P.T. Teijin Indonesia Fibre Corp.)
Polyester — Tangerang, West Java (yarn & staple*)

P.T. TOLARAM
Polyester — (yarn)

P.T. TRI REMPOA SOLO SYNTHETIC
Polyester — Rempon, Tangerang, West Java (staple)

P.T. VASTEX PRIMA INDUSTRIES
Polyester — Jalan Gedebage Ujungberung Bandung (yarn)

P.T. YASINTA
Polyester — Tangerang, West Java (yarn & staple*)

RAUMAQ ENTERPRISES
Nylon — (yarn)

IRAN

PARSYLON CORPORATION
Nylon 6 — Khoram-Abad (yarn)

POLYACRYL IRAN CORPORATION
Acrylic — Isfahan (staple)
Polyester — Isfahan (yarn & staple)

SHERKAT SAHAMI ALIAF
Nylon 6 — Tehran *Aliaf* (yarn)

OLEFIN FIBER

JAHANCITT SPINNING & WEAVING CO. Tehran (P film)

IRAQ

HINDIYA RAYON FACTORY
Rayon — Hindiya (reg yarn & staple)

OLEFIN FIBER

STATE ENTERPRISE FOR PLASTIC BAGS Tikrit

IRELAND

ASAHI SYNTHETIC FIBRES (IRELAND) LTD.
Acrylic — Ballina, Mayon *Cashmilon* (staple)

LIRELLE (IRELAND) LTD. (a division of Unifi, Inc.)
Polyester — Letterkenny *Lirelle* (yarn)

WELLMAN INTERNATIONAL LTD.
Nylon 6/66 — Mullagh, Kells, Meath *Wellon* (staple)
Polyester — Mullagh *Filwell, Wellene* (staple)

OLEFIN FIBER

F. DRAKE (IRELAND) LTD. Moate, Westmeath (P staple)

J. & L.F. GOODBODY (SYNTHETICS) LTD. Clara, Offaly (P yarn & film)

OLEFIN FILM FIBER only

IRISH POLYSACKS LTD. Blarney, Cork

IRISH ROPES LTD. Newbridge, Kildare

POLYTEX LTD.

ISRAEL

NILIT
Nylon 66 — Migdal Ha-Emek (yarn)

ITALY

ALCANTARA S.p.A.
Polyester — Narni, Umbria (microfibrous material)

AQUAFIL S.p.A.
Nylon 6 — Arco di Trento, Trentino *Aqualon* (yarn)
Polyester — Arco di Trento (yarn)

BEMBERG S.p.A.
Nylon 6 — Gozzano, Piemonte *Ortalion* (yarn)
Cupro — Gozzano *Bemberg* (yarn)

CARPOL S.p.A.
Nylon 6 — Forli, Emilia Romagna (yarn)

ENICHEM FIBRE S.p.A. (formerly Anicfibre)
Acrylic — Ottana & Porto Torres, Sardegna *Eurocril, Sironil* (staple & tow)
Nylon 6 — Pisticci, Lucania *Nivion* (yarn & staple)
Polyester — Ottana *Fidion* (staple & tow)

FILANDA 1992 S.p.A.
Polyester — Treviglio, Lombardia (yarn)

FILATURA DI VAL LESINA S.p.A.
Polyester — Andalo Valtellino, Lombardia *Valesa* (yarn)

ITALY (continued)

FIMALON S.p.A.
Nylon 66 — Castelnuovo Valsugana, Trentino Alto Adige (yarn)

FORTEX SIDAC S.p.A.
Nylon 6 — Forlì, Emilia Romagna *Fortion* (yarn)

FRATELLI FRANCHI S.p.A.
Nylon 6 — Canapale, Toscana *Frankilon* (yarn)
Polyester — Canapale *Frankilene* (yarn)

INDUSTRIE TESSILI VERCELLI S.p.A.
Acetate — Vercelli, Piemonte (yarn)

MIROGLIO TESSILE S.p.A.
Polyester — Alba, Piemonte (yarn)

MONTEFIBRE S.p.A.
Acrylic — Porto Marghera, Veneto *Leacril* (staple & tow)
Polyester — Acerra, Campania *Terital* (yarn, staple & tow)

NOVACETA S.p.A.
Acetate — Magenta, Lombardia (yarn)

NUOVA RAYON ITALIA S.p.A.
Rayon — Rieti, Lazio (reg yarn)

RADICI FIL S.p.A.
Nylon 6 — Casnigo, Lombardia (yarn)

SETTE STELLE S.p.A.
Nylon 6 — Castelgoffredo, Lombardia (yarn)

SNIA FIBRE S.p.A.
Acrylic — Cesano Maderno, Lombardia; Villacidro, Sardegna *Velicren, Velicren F.R.* (staple & tow)
Nylon 6/66 — Castellaccio, Lazio; Cesano Maderno & Varedo, Lombardia; Villacidro; Napoli, Campania *Coro Lilion Souple, Lilion Styl* (yarn, staple & tow)
Polyester — Napoli *Wistel, Wistel F.R.* (yarn)
Poliossiamide — Cesano Maderno *Vivrelle* (staple)

SOCIETA INDUSTRIALE CREMONESE S.p.A.
Rayon — Pizzighettone, Lombardia (ind yarn)

STERE
Polyester — Cardano al Campo, Lombardia (yarn)

TERBOND S.p.A.
Polyester — Pisticci, Lucania *Terbond* (spunbonded)

TEXTILE PRODUKTE S.p.A.
Nylon 6 — Villa D'Ogna, Lombardia (yarn & staple)

TORCITURA DI BORGOMANERO S.p.A.
Nylon 6 — Milano, Lombardia *Borgolon* (yarn)

OLEFIN FIBER

EUROFIL Gandino, Lombardia (P staple)

FILATURA DI DELEBIO S.p.A. Delebio, Lombardia *Delebion* (P yarn)

ITALY (continued)

FILLI FRANA Casnigo, Lombardia (P staple & film)

I.T.S. Legnano, Lombardia (P yarn)

MOPLEFAN (formerly Himont Italia S.p.A.)
Terni, Umbria *Meraklon* (P yarn & staple)

M.R. 81 Grassobbio, Lombardia (P yarn)

NOVASAR Caronno Pertusella, Lombardia (P yarn & staple)

POLYMECON Zibido S. Giacomo, Lombardia (P staple & tow)

SERGEL Casnigo, Lombardia (P staple)

TEXTILE PRODUKTE Villa D'Ogna, Lombardia (P staple)

OLEFIN FILM FIBER, only

CARPET BACKING S.p.A. Ceniga

DE MAGISTRIS EMILIO Bagnolo Cremasco

LICANA NORD S.p.A. Cassano d'Adda (Milano)

MILANPLAST s.r.l. Milano

MOPLEFAN S.p.A. Milano

NEOFIBRE s.r.l. Lendinara

SACHIM (MUMMOLO) Bari

S.E.A.L. S.p.A. Milano

S.I.S.A.L. S.p.A. Piacenza

STIROSIR S.p.A. Milano

TESSITURA LOMBARDA DI CONSONNI ELIA ALBIATE

GLASS FIBER

VETROTEX ITALIA S.p.A. Besana Brianza, Lombardia (mat), Fibras Di Rinforzo *VETROTEX*

VITROFIL S.p.A. Vado Ligure, Liguria

JAPAN

ASAHI CHEMICAL INDUSTRY CO., LTD.
Acrylic — Fuji *Cashmilon, Pewlon* (yarn & staple)
Nylon 6/66 — Nobeoka & Moriyama *Asahi Kasei Nylon, Leona* (yarn, monofil & spunbonded)
Polyester — Nobeoka & Moriyama *Asahi Kasei Ester* (yarn & spunbonded)
Rayon — Nobeoka (reg & cupra yarn, cupra staple & cupra spunbonded)
Saran — Suzuka (yarn, monofil & staple)
Spandex — Moriyama *Roica*

JAPAN (continued)

DAIWABO RAYON CO., LTD.

Rayon	Masuda (staple)

FUJI SPINNING CO., LTD.

Rayon	Toyo (staple)
Spandex	Kozakai *Fujibo Spandex*

JAPAN EXLAN CO., LTD.

Acrylic	Saidaiji *Exlan* (staple)

KANEBO, LTD.

Acrylic	Hofu *Kanebo Acryl* (staple)
Nylon 6	Hofu *Kanebo Nylon* (yarn)
Polyester	Sabae *Kanebo Polyester* (yarn)
Spandex	Hofu *Kanebo Loobell*

KANEGAFUCHI CHEMICAL INDUSTRY CO., LTD.

Modacrylic	Takasago *Kanecaron, Kanekalon* (staple & tow)

KOHJIN CO., LTD.

Polychlal	Yatsushiro *Cordelan* (staple)
Rayon	Yatsushiro (staple)

KURARAY CO., LTD.

Polyester	Saijo & Tamashima *Kuraray Polyester* (yarn & staple)
Rayon	Saijo & Tamashima *Three Golden Horses* (reg yarn)
Vinal	Okayama *Kuralon* (yarn & staple)

KUREHA CHEMICAL INDUSTRY CO., LTD.

Saran	Mibu *Krehalon* (yarn, monofil & staple)
Vinyon	Mibu *Vicion* (monofil)

MITSUBISHI RAYON CO., LTD. •

Acetate	Toyama (yarn & tow)
Acrylic	Otake *Finel, Silpalon, Vonnel* (yarn & staple)
Polyester	Toyohashi *Soluna* (yarn), Lunaace (staple)
Triacetate	Toyama (yarn)

NIPPON ESTER CO., LTD. (subsidiary of Unitika, Kanebo and Mitsubishi Chemical Industry)

Polyester	Okazaki & Sabae *Unitika Ester, Kanebo Ester* (yarn & staple)

NISSHINBO INDUSTRIES, INC.

Rayon	Tokushima (staple)
Spandex	Tokushima *Mobilon*

NITIVY CO., LTD.

Vinal	Fujieda *Niti-Vilon, Solvron, Vilon* (yarn)

OMIKENSHI CO., LTD.

Rayon	Kakogawa (yarn & staple)

TEIJIN LTD.

Aramid	Iwakuni & Matsuyama *Teijinconex, Technora* (yarn & staple)
Nylon 6	Mihara *Teijin Nylon* (yarn)
Polyester	Iwakuni, Matsuyama & Tokuyama *Teijin-Tetoron* (yarn & staple)
Vinyon	Iwakuni *Teviron* (yarn)

JAPAN (continued)

TEIJIN ACETATE LTD. (subsidiary of Teijin Ltd.)

Acetate	Matsuyama *Teijin-Acetate* (yarn)

TOHO RAYON CO., LTD.

Acrylic	Mishima *Beslon* (staple & tow)
Rayon	Tokushima *Tovis* (staple)

TORAY-DU PONT COMPANY LTD.

Spandex	Shiga *Opelon* (fused multifil)

TORAY INDUSTRIES, INC.

Acrylic	Ehime *Toraylon* (staple)
Nylon 6	Aichi, Ishikawa*, Nagoya, Okazaki & Shiga *Amilan, Toray Nylon* (yarn & staple)
Nylon 6/66 copolymer	Aichi *Tapilon* (yarn)
Nylon 66	Aichi, Ishikawa & Okazaki *Promilan* (yarn)
Polyester	Ehime, Ishikawa, Mishima & Okazaki *Toray Tetoron* (yarn & staple)

TORAY-MONOFILAMENT CO., LTD.

Nylon 6	Okazaki *Toray Nylon* (monofil)

TOYO CHEMICAL CO., LTD.

Vinyon	Ofuna *Envilon* (yarn & monofil)

TOYOBO CO., LTD. •

Nylon 6	Tsuruga *Toyobo Nylon* (ind & reg yarn)
Polyester	Iwakuni & Tsuruga *Toyobo Ester* (ind & reg yarn, staple & spunbonded)
Promix	Tsuruga *Chinon* (yarn)
Rayon	Iwakuni *Tufcel* (staple)
Spandex	Tsuruga *Espa*

UNITIKA LTD.

Nylon 6	Uji *Unitika Nylon* (yarn, monofil & staple)
Polyester	Okazaki *Unitika Ester* (ind yarn) *Marix* (spunbonded)

UNITIKA KASEI CO., LTD.

Vinal	Sakoshi (Akoh City) *Mewlon* (yarn, monofil & staple)

UNITIKA RAYON CO., LTD.

Rayon	Uji *Blackbird* (reg yarn)

YOSHIDA KOGYO K.K.

Polyester	Kurobe (yarn)

OLEFIN FIBER

ASAHI CHEMICAL INDUSTRY CO., LTD. Moriyama (P spunbonded)

CHISSO POLYPRO FIBER CO., LTD. Moriyama Chisso Polypro, ES Fiber (P yarn & staple)

DAIWABO CO., LTD. Harima *Daiwabo Polypro, NBF Fiber* (E & P staple)

HAGIHARA INDUSTRY CO., LTD. Kurashiki (E monofil & film)

HIRATA SPINNING CO., LTD. Yokkaichi *Hiralon* (E & P yarn & monofil)

JAPAN (continued)

INABA SEIKO, LTD. Gamagori (E monofil)

KANEYA SEIKO, LTD. Hokkaido & Kushiro (E & P monofil)

MARUAI CO., LTD. Toyohashi (E monofil)

MITSUBISHI RAYON CO., LTD. Toyohashi *Mitsubishi Pylen* (P yarn & staple)

NAGANO KAKO CO., LTD. Nagano (E monofil)

SHOWA POLYMER CO., LTD. Ibaraki (E monofil & film)

SUNREX INDUSTRY CO., LTD. Yokkaichi (E monofil & P spunbonded)

TAI-RAY CO., LTD. Mito *Danzex, Danzex Lite, Liplon* (E monofil, P yarn & monofil)

TANIYAMA CHEMICAL INDUSTRY CO., LTD. Okayama *Tanikalon* (E monofil)

TOA WOOL SPINNING & WEAVING CO., LTD. Toman *Toabo, Polypro* (P staple)

TONEN TAPYRUS K.K. (TONEN TAPYRUS CO., LTD.) Kawasaki *Tapyrus* (P spunbonded)

TOYOBO CO., LTD. Iwakuni (P staple)

UBE-NITTO KASEI CO., LTD. Fukuyama & Gifu *Bulkilon-F, Danline,Sun Line, Super Danline, Ube-Nitto Polypro, UNK UC Fiber* (E & P monofil & P yarn & E & P staple)

DAIDO KASEI Osaka

FUJIMOTO SANGYO Osaka

OKAMOTO CHEMICAL Ehime

SAKAI KASEI Osaka

SANTO CHEMICAL Aichi

SEKISUI CHEMICAL Amagasaki & Nara

TOYAMA Chiba

TOYO SODA Yokkaichi

WAKO SPINNING CO. Gifu

YAMAJIN TEXTILE Fukui

GLASS FIBER

ASAHI FIBER GLASS CO., LTD. Ibaraki & Shonan *Glasslon*

ASAHI-SCHWEBEL CO., LTD. Moriyama

CENTRAL GLASSFIBER CO., LTD. Matsusaka

JAPAN (continued)

FUJI FIBER GLASS CO. Moka

KANEBO, LTD. Gunma *Textoglass*

NIPPON GLASS FIBER CO., LTD. Tsu *Micro Glass*

THE NIPPON MINERAL FIBER MFG. CO. Tarui & Yuki *Superfine*

NITTO BOSEKI CO., LTD. Fukushima *Iceberg*

PARAMOUNT GLASS MFG. CO., LTD. Koriyama & Suzuka *Father Glass*

UNITIKA U.M. GLASS CO., LTD. Kyoto

KENYA

AFRICA SYNTHETIC FIBER LTD.
Nylon 6 Thika (yarn)
Polyester Thika (staple)

JAYDEES LTD.
Polyester Nairobi (yarn)

KENYA FIBRE CORPORATION LTD.
Polyester Nanyuki (yarn & staple)

KISUMU COTTON MILL (KICOMI)
Polyester Kisumu (yarn)

NAKURU INDUSTRIES
Polyester (yarn)

SUNFLAG LTD.
Polyester Nairobi (yarn)

OLEFIN FIBER

UNISACK LTD. Thika (P film)

KOREA PEOPLE'S DEMOCRATIC REPUBLIC OF (NORTH)

A number of manufactured fiber plants are said to be operating in North Korea (see June 1970 *Organon* issue, page 113); however, no data for this country are recorded in any table of this issue due to lack of reliable information.

KOREA REPUBLIC OF (SOUTH)

CHEIL SYNTHETIC INC.
Polyester Kumi *Eslon* (yarn & staple)
Spandex Kumi (yarn)

DAEHAN SYNTHETIC FIBER COMPANY
Polyester Ulsan *Acelan* (yarn & staple)

KOREA REPUBLIC OF (SOUTH) (continued)

GORYEO NYLON CORPORATION LTD.
Nylon 6 — Kyungsan *Kolon* (yarn)

HANIL SYNTHETIC FIBER INDUSTRIAL COMPANY
Acrylic — Masan *Hanilon* (staple)

HAN KOOK FIBERS COMPANY LTD.
Polyester — Kumi* (yarn)

JEIL SYNTHETIC FIBERS COMPANY
Polyester — Seoul *Oplen* (yarn)

KOHAP, LTD.
Nylon 6 — Shihung *Palmylon* (yarn & staple)
Polyester — Shihung *Palmylon* (yarn & staple)

KOLON INDUSTRIES INC.
Nylon 6 — Kumi Taegu *Kolon* (yarn)
Polyester — Kumi *Kolon* (yarn)

SAMYANG COMPANY
Polyester — Chunju *Triron* (yarn & staple)

SUNKYONG INDUSTRIES LTD.
Acetate — Suwon *Sunkong* (yarn & tow)
Polyester — Suwon & Ulsan *Sunkong* (yarn & staple)

TAEKWANG INDUSTRIAL COMPANY
Acrylic — Ulsan *Acelan* (staple)
Spandex — Ulsan *Acelan* (yarn)

TONGKOOK SYNTHETIC FIBRES CO.
Polyester — Kumi *Texlon* (yarn)
Spandex — Kumi (yarn)

TONGYANG NYLON COMPANY
Nylon 6 — Anyang & Ulsan *Toplon* (yarn)
Polyester — Ulsan *Toplon* (yarn)

TONGYANG POLYESTER COMPANY
Polyester — Ulsan *Toplon* (yarn)

WONJIN RAYON COMPANY
Rayon — Donong *Coray* (reg yarn) & (staple idle)

LIBYA

LIBYA NATIONAL OIL CORPORATION (LINOCO)
Nylon 6 — Marsa Al-Brega* (yarn)
Polyester — Marsa Al-Brega* (staple)

LUXEMBOURG

TECHNOFIBRES
Polyester — Mertert (yarn)

Production and capacity data are combined with Belgium and the Netherlands under "Benelux" on pages 108 - 109.

LUXEMBOURG (continued)

OLEFIN FIBER

DU PONT FIBRES S.A. Contern-Hesperange *Typar* (P spunbonded)

MALAYSIA

ALIFFIL SYNTHETIC FIBRE SDN. BHD.
Polyester — Penang (yarn)

ALLIED MALAYAN TEXTILE BHD.
Rayon — Penang *Teteron* (yarn)

ARAB-MALAYSIAN DEVELOPMENT BHD.
Rayon — Perak *Teteron* (yarn)

CHEMPAKA NEGRI LAKSHMI TEXTILES SDN. BHD.
Polyester — Negeri *Sembilan* (yarn)
Rayon — Negeri *Teteron* (yarn)

HING YIAP FIBREMAKERS
Polyester — Johor (yarn)

KWALITY TEXTILES (M) SDN. BHD.
Polyester — Kedah *Teteron* (yarn)
Rayon — Kedah *Teteron* (yarn)

MWE SPINNING MILLS SDN. BHD.
Polyester — Penang *Teteron* (yarn)
Rayon — Penang *Teteron* (yarn)

PENFIBRE SDN. BHD.
Nylon — Penang* (staple)
Polyester — Penang (staple)

QUALINIT SDN. BHD.
Polyester — Penang (yarn)

SOUTEX SENDIRIAN BERHAD
Polyester — Batu Pahat (yarn & staple)

SOUTH ASIA FIBRE INDUSTRIES SDN. BHD.
Polyester — Perak (yarn)

TEXFIBRE (SELANGOR) SDN. BHD.
Polyester — Kuala Lumpur (yarn)

TOOTAL THREAD MALACCA SDN. BHD.
Polyester — Malacca (yarn)

VERTEX FIBRE SDN. BHD.
Nylon — Perak (yarn)

MALTA

NYLON KNITTING CO. LTD.
Nylon 6 — Qormi (yarn)

Production and capacity data are combined with Italy.

MEXICO

CELANESE MEXICANA, S.A.

Acetate	Ocotlán, Jalisco (yarn & staple)
Nylon 6	Ocotlán & Toluca, México *Duracel, Nycel* (yarn & staple)
Polyester	Ocotlán, Querétaro & Toluca *Crolan* (yarn & staple)

CELULOSA Y DERIVADOS, S.A.

Acrylic	Atequiza, Jalisco *Crysel* (staple, tow & tops)
Rayon	Monterrey, Nuevo León (ind & reg yarn)

FIBRAS NACIONALES DE ACRILICO, S.A. (formerly FINACRYL)

Acrylic	Altamira (staple, tow & tops)

FIBRAS QUIMICAS, S.A.

Nylon 6	Monterrey, Nuevo León *Supernylon Cydsa* (yarn & monofil)
Polyester	Monterrey *Terlenka* (yarn)

FIBRAS SINTETICAS, S.A.

Acrylic	Cotaxtla, Veracruz *Fisisa* (staple, tow & tops)
Nylon 6	Mexico, D.F. *Fisisa* (yarn & monofil)
Polyester	Cotaxtla & México City *Fisisa* (yarn & staple)

FIBRASOMNI, S.A.*

Nylon 6	Ixtapalapa, D.F. *Omni-Nylon* (monofil)
Saran	Ixtapalapa *Omni-Saran* (monofil)

INDUSTRIAS PETROQUIMICAS MEXICANAS, S.A.

Polyester	El Salto, Jalisco *Inpetmex* (yarn)

KIMEX S.A.

Nylon 6	Tlalnepantla, México *Aztecron* (yarn)
Polyester	Tlalnepantla *Kintrel* (yarn)

NYLON DE MEXICO, S.A.

Nylon 6	La Leona, Nuevo León *Nylfil* (yarn & staple)
Polyester	La Leona *Delcron* (yarn, staple, tow & fiberfill)
Spandex	La Leona *Likra* (fused multifil)

PLASTICA MODERNA, S.A. DE C.V.

Nylon 6	Tlalpan, D.F. *Pertux* (monofil)

PRODUCTOS PLASTICOS DE PUEBLA, S.A.

Nylon 6	Puebla, Puebla *Prolon* (monofil)

OLEFIN FIBER

FIBRASOMNI, S.A. Ixtapalapa, D.F. *Polisn-Omni* (E monofil), *Polyprop-Omni* (P yarn & monofil)

INDUSTRIAS POLIFIL, S.A. Ixtacuixtla, Tlaxcala *Pliana* (P yarn & staple)

PLASTICOS INDUSTRIALIZADOS, S.A. Monterrey, Nuevo León (P staple)

OLEFIN FILM FIBER only

HILOS Y CORDELES, S.A. Tlalnepantla, México

MEXICO (continued)

PLASTICEL, S.A. Monterrey, Nuevo León (*Plasticel*)

POLISAC, S.A. (affiliate of Nylon de México, S.A.) Guadalajara, Jalisco (*Polisac*)

GLASS FIBER

VITRO-FIBRAS, S.A. Zacatenco, D.F. *Vitrofibras*

NETHERLANDS

AKZO FIBRES AND POLYMERS DIVISION, ENKA bv

Aramid	Emmen *Twaron* (yarn)
Nylon 6	Emmen *Enka, Enkastat, Enkalon* (yarn)
Polyester	Emmen *Diolen* (yarn & staple)
Rayon	Arnhem & Ede *Cordenka, Enka Viscose* (ind & reg yarn)

DU PONT DE NEMOURS (NEDERLAND) N.V.

Spandex	Dordrecht *Lycra* (fused multifil)

OLEFIN FIBER

LANKHORST TOUWFABRIEKEN B.V. Sneek *Tiptolene* (E monofil & P film)

T.T.C. POLYOLEFINS B.V. Nijverdal (P monofil, film & staple)

N.V. VERTO Rotterdam (P film)

GLASS FIBER

SILENKA B.V. Hoogezand (Groningen) *Silenka*

Artificial (cellulosic) production and capacity data are combined with Belgium on pages 112 - 115. Synthetic (noncellulosic) production and producing capacity data are combined with Belgium and Luxembourg under "Benelux" on pages 108 - 111.

NICARAGUA

OLEFIN FIBER

MANUFACTURERA CENTRO AMERICANA S.A. (MACEN) Managua (P film)

NIGERIA

INTEGRATED FIBERS

Polyester	Kano* (yarn)

NICHEMTEX INDUSTRIES LTD.

Polyester	Ikorodu, Lagos *Nigerlene* (yarn & staple)

SPINDEX SUNFLEG

Polyester	(yarn*)

NORWAY

OLEFIN FIBER

A/S PLATON, AVD. TEKSTIL Notodden *Filmtex* (E & P film)

NORFIL-NORPACK A/S Stavern, near Larvik *Akvaflex* (P yarn, E & P monofil & film)

STAL OG TAU Tonsberg *Norseflex* (P film)

GLASS FIBER

NORSK GLASSFIBER A/S Birkeland

PAKISTAN

BENGAL FIBER INDUSTRIES, C/O BENGAL OIL MILLS LIMITED

Nylon 6	Karachi *Nylpak* (yarn)
Polyester	Karachi (yarn & staple)

DILON LIMITED

Nylon 6	Landhi *Dilon* (yarn)
Polyester	(yarn*)

GATRON INDUSTRIES LIMITED

Polyester	Hub Chowki (yarn)

HASHWANI GROUP

Polyester	Sind Province (yarn)

ICI PAKISTAN MANUFACTURERS LTD.

Polyester	Lahore *Tere-Pak* (staple)

NATIONAL FIBERS LIMITED

Polyester	Korangi, Karachi (yarn & staple)

NILOM NYLON MILLS LIMITED

Nylon 6	Lyallpur *Nilom* (yarn & monofil)

PAK FIBRE INDUSTRIES LIMITED

Polyester	Hub Chowki (yarn)

POLYTEX

Polyester	(yarn)

RAVI RAYON LIMITED

Acetate	Kala Shah Kaku, Sheikhupura District *Krasil* (yarn)

RUPALI POLYESTER LIMITED

Polyester	Karachi (yarn & staple)

S.G. RAYON MILLS LIMITED

Polyester	Karachi (yarn)

SYNTHETIC POLYLON

Polyester	Katri (yarn), Hub Chowki (staple)

PERU

BAYER INDUSTRIAL S.A.

Acrylic	Lima *Dralon* (staple)

FILAMENTOS INDUSTRIALES, S.A.

Nylon 6	Lima* (yarn)
Polyester	Lima (yarn)

MANUFACTURA NYLON S.A.

Nylon 6	Vitarte, near Lima (yarn)
Polyester	Vitarte *Diolen* (staple)

MANUFACTURAS DEL SUR S.A.

Nylon 6	Arequipa *Long Life, Mistilon* (yarn)
Polyester	Arequipa (yarn & staple)

RAYON INDUSTRIAL S.A.

Acetate	Lima (yarn)
Nylon	Lima (staple)
Polyester	Lima *Forcel* (yarn, staple, tow & tops)

RETEX PERUANA, S.A.

Nylon 6	Ventanilla, Callao (yarn)

OLEFIN FILM FIBER only

NORSAC S.A. Trujillo

POLICEL DEL PERU S.A. Lima

SACOS DEL SUR S.A. Arequipa

SACOS PISCO S.A. Pisco

PHILIPPINES, REPUBLIC OF THE

FIBERTEX CORPORATION

Nylon 6	Taytay, Rizal *Texfiber* (yarn)

FILIPINAS SYNTHETIC FIBER CORPORATION

Polyester	Sta. Rosa, Laguna *Filsyn* (yarn & staple)

HI-LON MANUFACTURING CORPORATION

Nylon 6	Calamba, Laguna *Philippine Polyamide* (yarn)

INDOPHIL FIBER CORPORATION

Rayon	Manila (staple)

LAKEVIEW INDUSTRIAL CORPORATION

Polyester	Carmona, Rizal *Licron* (yarn & staple) (idle)

OLEFIN FIBER

INDUSTRIAL TEXTILE MANUFACTURING CO. (ITEMCOP) Mandaluyong, Rizal (P film)

MANILA CORDAGE COMPANY Manila (P film)

POLAND

CHODAKOWSKIE ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX"
Rayon — Sochaczew (reg yarn)

WROCŁAWSKIE ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX"
Rayon — Wroclaw (reg yarn)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-ANILANA"
Acrylic — Łódz *Anilana* (staple)
Azlon — Łódz *Wipolan* (staple, casein base)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-CELWISKOZA"
Polyester — Jelenia Góra *Elana* (staple)
Spandex — Jelenia Góra (pilot plant) *Elaston* (yarn)

ZAKŁADY WŁOKIEN CHEMICZNYCH "ELANA"
Polyester — Torun, Bydgoszcz *Torlen* (yarn), *Elana* (staple)

ZAKŁADY WŁOKIEN CHEMICZNYCH "STILON"
Nylon 6 — Gorzów Wielkopolski *Lanastil, Stilon* (yarn), *Polana* (staple)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISKORD" *
Rayon — Szczecin-Zydowce (reg yarn)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISTOM"
Rayon — Tomaszów Mazowiecki, Łódz (ind & reg yarn & staple)

OLEFIN FIBER

ZAKŁADY PRZEMYSŁU LNIARSKIEGO LENKO Bielsko-Biala (P film)

ZAKŁADY PRZEMYSŁU LNIARSKIEGO SKARBKOW Mirsk, Wroclaw (P staple)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISKORD" Szczecin-Zydowce (P staple)

GLASS FIBER

KROSNIENSKIE HUTY SZKŁA Krosno

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-ANILANA" *Łódz Polsilon*

PORTUGAL

COMPANHIA INDUSTRIAL DE FIBRAS ARTIFICIAIS (CIFA), S.A.R.L.
Nylon 6 — Sobrado, Valongo *Cifalon* (yarn)
Rayon — Sobrado (reg yarn & staple)

FIBRAS SINTÉTICAS DE PORTUGAL, S.A.R.L. (FISIPE)
Acrylic — Lisbon *Vonnel* (staple, tow & tops)

PORTUGAL (continued)

FINICISA - FIBRAS SINTÉTICAS, S.A.R.L.
Polyester — Portalegre, Alto Alentejo *Teryiene* (staple)

HOECHST PORTUGUESA S.A.R.L.
Nylon — Porto (monofil)

TÊXTIL ARTIFICIAL DO PORTO, LDA.
Rayon — Porto (reg yarn)

OLEFIN FIBER

ALICATIFAS DA LOUSA (P staple)

FERCOL (P staple)

LUSOTUFO (P staple)

QUIMIGAL - QUIMICA DE PORTUGAL, E.P. Barreiro (P staple & film)

OLEFIN FILM FIBER, only

CERFIL Maia - Douro

CORDEX - COMPANHIA INDUSTRIAL TEXTIL, S.A.R.L. Esmoriz

COTESI - COMPANHIA DE TEXTEIS SINTETICOS S.A.R.L. Carvalhos

EUROFIL - INDUSTRIAS DE PETROLEOS PLASTICOS E FILAMENTOS, S.A.R.L. Lisbon

FABRICA DE TAPETES VITÓRIA Mira d'Aire

FERNANDES & COSTA, LDA. Seia

MANUEL RODRIGUES DE LIMA & FILHOS Cortegaca

MANUEL RODRIGUES D'OLIVEIRA, S.A. LDA. M. Maia

QUINTAS & QUINTAS Povoa do Varzim

SICOR - SOCIEDADE INDUSTRIAL DE CORDOARIA S.A.R.L. Cortegaca

GLASS FIBER

QUIMIGAL - QUIMICA DE PORTUGAL, E.P. Barreiro

ROMANIA

CIMBINATUL DE FIBRE SINTETICE CIMPULUNG MUSCEL
Polyester — Near Brasov (yarn)

COMBINATUL DE FIBRE ARTIFICIALE
Rayon — Braila, Dej* & Suceava* (ind yarn & staple)
Polyester — Vaslui (yarn)

FABRICA DE FIBRE ARTIFICIALE "VISCOFIL"
Rayon — Popesti-Leordeni, near Bucuresti (reg yarn)

ROMANIA (continued)

FABRICA DE FIBRE ARTIFICIALE "VISCOZA"
Rayon — Lupeni (reg yarn)

INTREPRINDERA DE FIBRE SINTETICE CORABIA
Polyester — North of Pleven (yarn)

UZINA DE FIBRE SINTETICE IASI
Polyester — Iasi *Teron* (yarn, staple, tow & tops)

UZINA DE FIBRE SINTETICE SAVINESTI
Acrylic — Savinesti, near Piatra Neamt (Bacau Region) *Melana* (staple & tops)
Nylon 6 — Savinesti *Relon* (yarn & staple)

SAUDI ARABIA

ALASTRA
Polyester — Yanbu' (staple)

SOUTH AFRICA, REPUBLIC OF

BELGOTEX (Beaulieu Group)
Nylon 6 — (yarn)

CONSOLIDATED TEXTILE MILLS (part of Frame Group of Companies)
Polyester — Jacobs, Natal (yarn & staple - captive)

HOECHST SOUTH AFRICA (PTY.) LTD.
Polyester — Milnerton, Cape Province *Trevira* (staple)

ROMATEX MILLS •
Nylon 6 — Jacobs, Natal (staple)

SOUTH AFRICAN NYLON SPINNERS (PTY.) LIMITED
Nylon 66 — Bellville, Cape Province *Bri-Nylon* (yarn)
Polyester — Bellville & Hammarsdale, Natal *Terylene* (yarn)

OLEFIN FIBER

ROMATEX MILLS Jacobs, Natal (P film & staple)

SPAIN

BRILEN S.A.
Polyester — Barbastro, Huesca & Igualada, Barcelona (yarn & staple)

COURTAULDS FIBRES S.A.
Acrylic — Prat de Llobregat, Barcelona *Courtelle* (staple & tow)

DE FIBER S.A.
Nylon 66 — Vendrell, Tarragona

INDUSTRIAS DEL ACETATO DE CELULOSA, S.A. (INACSA)
Acetate — La Batlloria, Barcelona (yarn)

INDUSTRIAS QUIMICAS TEXTILES S.A. (INQUITEX)
Nylon 6 — Andoain, Guipuzcoa *Carbyl, Nylhair, Trinyl* (yarn & staple)

SPAIN (continued)

LA SEDA DE BARCELONA, S.A.
Nylon 6 — Alcalá de Henares, Madrid *Dayan, Enkalon* (yarn & staple)
Polyester — Prat de Llobregat, Barcelona *Terlenka* (yarn & staple)
Rayon — Prat de Llobregat (reg yarn)

MONTEFIBRE HISPANIA S.A.
Acrylic — Miranda de Ebro, Burgos *Leacril* (staple)

NUREL S.A.
Nylon 6 — Zaragoza, Zaragoza *Nurel* (yarn & staple)
Polyester — Zaragoza *Terylene* (yarn & staple)

RHÔNE - POULENC FIBRAS S.A. (formerly SOCIEDAD ANONIMA DE FIBRAS ARTIFICIALES (SAFA)
Nylon 66 — Blanes & San Julian de Ramis, Gerona *SAFA* (yarn & staple)
Polyester — Blanes *Tergal, Teriber* (yarn & staple)

SOCIEDAD NACIONAL DE INDUSTRIAS APLICACIONES CELULOSA ESPANOLA, S.A. (SNIACE)
Nylon 6 — Torrelavega, Santander *Lilion* (yarn & staple)
Rayon — Torrelavega (staple)

OLEFIN FIBER

PAULAR, S.A. - EMPRESA PARA LA INDUSTRIA QUIMICA
Puertollano, C.R. *Istrakin* (P monofil & film)

PROFILEX (P staple)

PROPILAN (P staple)

SERINA TEXTIL (P staple)

SOCIEDAD ANONIMA ITALO ESPANOLA (SAITES) Sabadell, Barcelona (P staple & film)

TEXTILE ARMENGOL Bruch, Barcelona (P staple & film)

OLEFIN FILM FIBER, only

CONDEROLS S.A. Granada

CORDELERIAS BARAS S.A. Gijon, Asturias

CORDELERIAS MAR S.A. Vigo, Pontevedra

HILATURAS Y CORDELERIA S.A. - "HILCOSA" Barcelona

HIRESA Callosa de Segura, Alicante

YUTE INDUSTRIAL S.A. Valencia

GLASS FIBER

CRISTALERIA ESPANOLA - DIVISION FIBRA DE REFUERZO
Alcalá de Henares, Madrid *Fibra de Refuerzo VETROTEX*

SRI LANKA

CEYLON PETROCHEMICAL CORPORATION
Nylon 6 — Sapugaskan (yarn & monofil)

SWEDEN

SVENSK... AYON AKTIEBOLAGET
Rayon — Alvenäs, Valberg (staple)

OLEFIN FIBER

SONDEX AB Malmö *Laveten* (E & P monofil)

GLASS FIBER

SCANDINAVIAN GLASFIBER AKTIEBOLAG Falkenberg

SWITZERLAND

EMS INDUSTRIES, LTD.
Nylon 6 — Ems, Graubünden *Grilon* (staple)
Polyester — Domat/Ems *Grilene* (staple)

NOYFIL S.A.
Nylon 6 — Stabio (yarn)
Polyester — Stabio (yarn)

VISCOSUISSE A.G.
Nylon 6/66 — Emmenbruecke, Luzern & Widnau, St. Gallen *Nylsuisse, Flixor* (yarn & staple)
Polyester — Widnau *Tersuisse* (yarn)

OLEFIN FILM FIBER, only

AROVA SCHAFFHAUSEN A.G. Schaffhausen

POLY-STEGN A.G. Flurlingen

VOGT & CO. Reinach

TAIWAN

BAN SHIN FIBER CO., LTD.
Nylon 6 — Kaohsiung *Sun & Colorful Seal* (yarn)

CENTURY EVERGREEN CORP.
Polyester — Tainan *Centuron* (yarn)

CHENTA CHEMICAL INDUSTRIAL CORPORATION
Nylon 6 — Kaohsiung *Rabbit* (yarn)

CHI YURN FIBER MILLS
Nylon — Tao Yuan (staple)

CHINA MAN-MADE FIBER CORPORATION
Rayon — Tou Fen *Queen* (reg yarn & staple)

CHUNG SHING TEXTILE CO., LTD.
Nylon 6 — Tao Yuan *Tasinlon, Threegun* (yarn)
Polyester — Tao Yuan *Tasinlon* (yarn & staple)

TAIWAN (continued)

FAR EASTERN LTD.
Polyester — Hsin Chu *Eastlene, Eastlon* (yarn & staple)

FORMOSA CHEMICALS & FIBER CORPORATION (part of Formosa Plastics Group)
Nylon 6 — Chang Hwa *Sunylon* (yarn)
Rayon — Chang Hwa & Longder *Tairiyon* (staple)

FORMOSA PLASTIC CORPORATION - Tairylan Plant (part of Formosa Plastics Group)
Acrylic — Kaohsiung & Lanchu *Tairylan* (staple, tow & tops)

FUPONT SYNTHETIC INDUSTRIAL CO.
Nylon 6 — Tao Yuan *Full-long* (yarn)

HUALON CORPORATION
Nylon 6 — Chungho, Tao Yuan & Tou Fen (yarn)
Polyester — Chungho, Tou Fen & Yim Kao *Hualon* (yarn & staple)

HUNG CHOU CHEMICAL INDUSTRY COMPANY, LTD.
Polyester — Kwei Shan *Hunvira* (yarn)

JANG DAH NYLON INDUSTRIAL CORP., LTD.
Nylon 6 — Hsin Tien *Yuan Pao* (yarn)

NAN-YA PLASTIC CO., POLYESTER FIBER DIVISION (part of Formosa Plastics Group)
Polyester — Tai Shan *Tainlin* (yarn & staple)

SAN YUAN HSING ENTERPRISE COMPANY
Nylon 6 — Kaosiung (monofil - captive)

SHINKONG SYNTHETIC FIBERS CORPORATION
Polyester — Tao Yuan *Shinlon* (yarn & staple)

SYNTHETIC FIBER MILLS CORPORATION
Nylon 6 — Tao Yuan *Synlon* (yarn)

TA MING FIBERS INDUSTRIAL CORPORATION
Nylon 6 — Tao Yuan *Ta Ming Nylon* (yarn)
Polyester — Tao Yuan *Poylon* (yarn)

TAINAN SPINNING CO., LTD.
Polyester — Tainan & Tao Yuan *Nanlon* (yarn)

TONG HWA SYNTHETIC FIBER CO., LTD.
Acrylic — Chu Pei *Townflower* (staple & tow)

TUNG HO SPINNING WEAVING & DYEING CO., LTD.
Polyester — Tainan *Pearlylene* (staple)

TUNTEX DISTINCT CORP.
Polyester — Hsin Su *Tuntex* (yarn & staple*)

UNITED SYNTHETIC FIBERS CORPORATION
Polyester — Tao Yuan *King Long* (staple)

VANLON FIBERS INDUSTRIAL CORPORATION
Nylon 6 — Tao Yuan *Vanlon* (yarn)
Polyester — Tao Yuan *Vanlon* (yarn)

TAIWAN (continued)

YU HO FIBER INDUSTRIAL CORPORATION
Polyester — Tao Yuan *Luxlen* (yarn)

OLEFIN FIBER

CHIA YANG INDUSTRIAL CO., LTD. Hsi-Chih (P monofil)

CHIEN SUN PLASTIC INDUSTRIAL CO., LTD. Hsin-Chu (E & P film)

CHINA FOLEX CORPORATION Shih-Lin (E & P monofil)

CHUNG KUANG PLASTIC CO., LTD. Chang-Hua (E & P film)

FULLMARK INDUSTRIAL CO., LTD. Hsin-Chu (E & P monofil)

FUU WON CHEMICAL INDUSTRIAL CO., LTD. Tu-Chen (P yarn)

HSIEH CHIN FISHING NET COMPANY, LTD. Kaohsiung *Hsieh Chin* (E monofil - captive)

HUNG FENG ENTERPRISE CO., LTD. Yang-Mei (P monofil)

IEN YI FIBER INDUSTRIAL CO., LTD. Chi-Do Goble (E monofil)

JUI I CHEMICAL INDUSTRIAL CO., LTD. Tou-Yuan (E & P monofil)

KUO HSIANG ENTERPRISE CO., LTD. Yang-Mei (E & P monofil)

LIEN FU CHEMICAL COMPANY LTD. Tou-Fen (E & P monofil)

MEI LON FIBER CO., LTD. Chang-Hua (E monofil)

PAO TSUNG TAI INDUSTRIAL COMPANY LTD. Tainan (P film)

POLON FIBER INDUSTRIAL CO., LTD. Chung-Li (P monofil)

SAN YANG INDUSTRIAL COMPANY LTD. Nei Hu Hsiang (P film)

TAI YEE CHEMICAL INDUSTRIAL CO., LTD. Chung-Li (E & P monofil)

UNITED FIBER INDUSTRIAL CO., LTD. Chung-Li (E & P monofil)

YAO CHENG PLASTIC CO., LTD. Pan-Chiao (P yarn)

TANZANIA

SUN FLAG TEXTILE KNITWEAR MILLS LTD.
Polyester — Arusha (yarn)

THAILAND

ASIA FIBER CO., LTD.
Nylon 6 — Samut Prakarn *AFC* (yarn)

THAILAND (continued)

CHIEM PATANA SYNTHETIC FIBRE LTD.
Polyester — Ratchaburi Prov. (yarn & staple*)

HANTEX CORPORATION LTD.
Nylon 6 — Mahacha, Samut Sakorn (yarn)

ORIENTAL FIBRE
Polyester — Samut Sakorn (yarn)

SIAM POLYESTER CO., LTD.
Polyester — Bangkok (yarn & staple*)

TEIJIN POLYESTER (THAILAND) LTD.
Polyester — Pathumthani, Bangkok *TEIJIN TETORON* (yarn & staple)

THAI ACRYLIC FIBER
Acrylic — (staple)

THAI MELON POLYESTER CO. LTD.
Polyester — Pathumthani, Bangkok (yarn & staple)

THAI NYLON CO., LTD.
Nylon — (yarn*)

THAI RAYON CO., LTD.
Rayon — Ang Thong (staple)

THAI TAFFETA CO., LTD.
Nylon 6 — Bangkok (yarn*)

TORAY NYLON THAI COMPANY
Nylon 6 — Bangkhen, Bangkok *TNT* (yarn & monofil)
Polyester — Bangkhen *TNT* (yarn)

TUNTEX (THAILAND) CO., LTD.
Polyester — (yarn & staple*)

TURKEY

AKRILIK KIMYA SANAYII A.S. (AKSA)
Acrylic — Yalova *Aksa* (staple)

DUSA ENDUSTRIYEL IPLIK SANAYII VE TICARET A.S.
Nylon 6 — Izmit (yarn)

FILAMENT SENTETIK IPLIK VE ELYAF SANAYII A.S.
Polyester — Bursa *Filament* (yarn & staple)

GEMLIK SUNI IPEK VE VISKOZ MAMULLERI SANAYII MUESSESESI (GEMLIK ARTIFICIAL SILK & VISCOSE PRODUCTS INDUSTRY) (Operated by the Sumerbank)
Rayon — Gemlik (yarn & staple)

INSA ISTANBUL NAYLON SANAYII A.S.
Nylon 6 — Istanbul *Islon* (yarn)
Polyester — Istanbul (yarn)

M.N. SABUNCU
Polyester — Adana *MNS* (yarn) (idle)

TURKEY (continued)

NERGIS A.S.
Polyester — Bursa (yarn)

POLYLEN SENTETIK IPLIK SANAYII A.S.
Polyester — Bursa *Polylene* (yarn)

SANCAK TUL SANAYII LTD., STI.
Polyester — Istanbul *Lalelon* (yarn) (idle)

SASA SUNI VE SENTETIK ELYAF SANAYII A.S.
Polyester — Adana *Penlon* (yarn & staple)

SENTETIK IPLIK FABRIKALARI, A.S. (SIFAS)
(SYNTHETIC YARN FACTORIES CORPORATION)
Nylon 6 — Bursa *SIFAS* (yarn & staple)
Nylon 66 — Bursa (yarn)
Polyester — Bursa (yarn & staple)

SISAS
Polyester — Canakkale* (yarn)

TEKSTIPLIK SANAYII VE TICARET A.S.
Nylon 6 — Edirne *Dimlon* (yarn)

YALOVA ELYAF VE IPLIK SANAYII VE TICARET A.S.
Acrylic — Yalova *Yalova* (staple & tow)
Modacrylic — Yalova *Yalova* (staple & tow)

OLEFIN FIBER

BEZCI ELYAF SANAYII A.S. Istanbul

DINARSU ELYAF SANAYII A.S. Cerkezkoy, Tekirdag (P staple)

ELSAN ELYAF SANAYII VE TICARET A.S. Istanbul (P staple)

HALICIOGLU ELYAF SANAYII A.S. Haskoy, Istanbul (P staple)

SESAS ELYAF SANAYII A.S. Istanbul

GLASS FIBER

CAM ELYAF SANAYII A.S. Cayirova-Gebze (Izmit)

UNION OF SOVIET SOCIALIST REPUBLICS

RAYON PLANTS reported at:
Balakovo, Barnaul, Cherkassy (Ukraine), Kalinin, Kamensk, Kiev, Klin, Krasnoyarsk, Leningrad, Mogilev, Ryazan, Saratov, Sokol, Sverdlovsk and Svetlogorsk.
ACETATE PLANTS reported at:
Engels, Fergana, Kirovakan and Moscow.
NYLON PLANTS reported at:
Barnaul, Chernigov, Daugavpils, Engels, Grodno, Kemerovo, Kiev, Klin, Leningrad, Rustavi, Shchekino and Zhitomer.
SYNTHETIC (NONCELLULOSIC) FIBER PLANTS reported at:
Kursk (polyester), Blagoveshchensk (polyester*), Kustanay (vinyon), Minsk (polyester), Mogilev (polyester), Navoi, Polotsk and Saratov(acrylic+modacrylic), Svetlogorsk (polyester).
GLASS FIBER PLANTS reported at:
Astrakhan, Kalinin, Khabarovsk, Leningrad, Mingechaur, Moscow, Polotsk, Salevat, Saratov, Sevan and Severodonetsk.

UNITED KINGDOM

COURTAULDS FIBRES LTD.
Acrylic — Grimsby, South Humberside *Courtelle* (staple & tow) *Courtek M* (bioactive staple) *Sekril* (high modulus staple)
Modacrylic — Coventry, West Midlands *Teklan* (staple & tow) *Neochrome FR* (staple & tow)
Polyacrylate — Coventry *Inidex* (staple)
Rayon — Grimsby *Sarille* (staple) *Viloft* (staple & tow), Grimsby *Tencel*, (solvent-spun staple & tow)
Acetate — Coventry; Spondon, Derbyshire *Dicel* (yarn & tow)
Triacetate — Spondon *Tricel* (yarn)

DEAN DOVE LTD.
Polyester — Stanley, Durham (yarn)

DU PONT (U.K.) LTD.
Aramid — Maydown, *Kevlar* (yarn)
Spandex — Maydown, Londonderry, N. Ireland *Lycra* (fused multifil)

ECTONA FIBRES LTD.
Acetate — Siddick, Workington (cigarette tow)

HOECHST FIBRE INDUSTRIES U.K. LTD.
Polyester — Limavady, Londonderry, N. Ireland *Trevira* (yarn & monofil)

ICI FIBRES (part of ICI Chemicals and Polymers Ltd.)
Biconstituent — Doncaster, Yorkshire (staple)
Nylon 66 — Doncaster, Gloucester, Gloucestershire; Pontypool & Wales *Bri-Nylon, Qazul, Quintesse, Tactel, Tactesse, Tendrelle, Timbrelle* (yarn, staple & tow)
Polyester — Pontypool *Terinda, Terylene* (yarn)

NYMOFIL PLC
Nylon 6/66 — Poulton-le-Fylde, Lancashire (monofil)
Polyester — Poulton-le-Fylde (monofil)

PENNINE FIBRE INDUSTRIES LTD.
Nylon 6/66 — Bradford (monofil)
Polyester — Bradford, West Yorkshire (staple & tow)

PERI-LUSTA PLC
Nylon 6/66 — Leek, Staffordshire (monofil)

OLEFIN FIBER

BELFAST ROPEWORK CO. PLC Birmingham, W. Midlands *Bluebell* (E & P monofil, P yarn, staple & film)

DON & LOW (HOLDINGS) LTD. Forfar, Angus, Scotland (P yarn, monofil, staple & film)

F. DRAKE (FIBRES) LTD. Golcar, Huddersfield, Yorkshire *Gymlene* (P staple)

F. DRAKE & CO. OF GOLCAR LTD. Golcar, Huddersfield (P yarn)

HALL'S BARTON ROPERY LTD. Beverley N. Humberside (P film and E & P monofil)

UNITED KINGDOM (continued)

WM. HALLEY & SONS (MFG.) LTD. Dundee, Scotland

OAKDALE YARNS Crumlin, Gwent, Wales (P yarn)

PLASTICISERS LTD. Drighlington, Yorkshire *Drylene* (E monofil); *Charisma, Duron, Fibrite, Tritor* (P yarn, monofil, film & staple)

POLYOLEFIN FIBRES & ENGINEERING LTD. Halifax, Yorkshire *Downspun* (P staple)

READICUT INT'L. PLC. Brighouse, W. Yorks

J & D WILKIE LTD. Kitriemuir, Angus, Scotland

OLEFIN FILM FIBER only

AMOCO FABRICS & FIBERS CO., DIVISION OF AMOCO (U.K.) PLC Consett, Dundel, Durham

BONAR TEXTILES Dundee, Scotland

BRIDON FIBRES & PLASTICS LTD. Gateshead & Sunderland, Durham & Wallsend, Northumberland *Broplene, Red Star, Viking*

SCOTT & FYFE LTD. Tayport, Fife, Scotland

A.G. SCOTT TEXTILES LTD. Dundee, Scotland

SMITH & NEPHEW TEXTILES LTD. Newhey, near Rochdale, Lancashire *Polyweave*

SYNTHETIC INDUSTRIES (IRELAND) LTD. Newry, Down, N. Ireland

GLASS FIBER

FIBREGLASS PLC (subsidiary of Pilkington Brothers PLC) Wrexham, Clwyd, Wales *Fibreglass*

T GLASS FIBRES PLC Camberley, Surrey & Hindley Green, Lancashire

FIBREGLASS-REGINA, a joint venture of **FIBREGLASS PLC** and the **BBA GROUP PLC,** is producing textile glass tissue (voile) at Liversedge and St. Helens, Merseyside.

PPG GLASS FIBRES, LTD. Hindley Green, Wigan, Lancashire

UNITED STATES OF AMERICA

ALBANY INTERNATIONAL - MONOFILAMENT PLANT *

Fluoro	Homer, NY *Halar, Kynar, Tefzel* (monofil)
Nylon 6, 66 & 612	Homer (monofil)
Polyester	Homer (monofil - regular & hydrolysis-resistant)

UNITED STATES OF AMERICA (continued)

ALLIED-SIGNAL INC. ENGINEERED MATERIALS SECTOR, FIBERS DIVISION *

Nylon 6	Columbia, SC & Hopewell, VA *A.C.E., Anso-Tex, Anso IV HP, AnsoV Worry Free, Anso X, Capima, Caplana, Caprolan, Caprolan 2000, Caprolan 2000 Sea Gard, Caprolan 2000 Stay Gard, Capima, Captiva, Compet, Creme De Captiva, Hydrofil, Iron Clad Patina, Sea Gard,TEC* (yarn,monofil & staple)
Polyester	Moncure, NC *A.C.E., A.C.E. Sea Gard, Compet, Stay Gard* (yarn & monofil)

AMERICAN CYANAMID COMPANY, FIBERS DIVISION

Acrylic	Milton, FL *Creslan* (staple & tow)

AMERICAN POLYCRAFT, INC. *

Nylon 6	Dalton, GA (yarn)

AVTEX FIBERS INC.

Polyester	Lewistown, PA *Avlin* (yarn)

BASF CORPORATION FIBERS DIVISION

Nylon 6	Enka, NC, Anderson & Central, SC and Lowland, TN *Crepeset, Shimmereen, Vivana, Zefsport, Zeftron, Zeftron 500, Zeftron 500 ZX* (yarn & staple)
Polyester	Lowland *Golden Glow, Golden Touch, Silky Touch, Strialine, Ultra Touch* (yarn)
Rayon	Lowland *Zantrel, Zantrel Plus™* (staple)

BEAULIEU OF AMERICA, INC.*

Nylon 6	Bridgeport, AL (yarn)

BERKLEY & CO., INC. *

Nylon 6	Spirit Lake, IA (monofil)

CAMAC CORPORATION (a subsidiary of Cookson America, Inc.)

Nylon 6	Bristol, VA *Camalon* (yarn)

COLOR-FI, INC. *

Nylon	Sumter & Trenton, SC (staple & tow)
Polyester	Sumter & Trenton (staple)

CONCORDE FIBERS, INC.

Nylon 6	Jamestown, SC (yarn)

CORTLAND LINE COMPANY, INC.

Nylon 6	Cortland, NY (monofil - captive)

COURTAULDS FIBERS INC.

Rayon	Le Moyne, Mobile County, AL *Fibro* (staple)

DORSETT CARPET MILLS INC. *

BCF YARN DIVISION

Nylon 6	Chatsworth, GA (yarn)

UNITED STATES OF AMERICA (continued)

E.I. DU PONT DE NEMOURS & COMPANY (INC.) •

FIBERS DEPARTMENT •

Acrylic*	Camden, SC & Waynesboro, VA *Orlon* (staple & tow) ***Shutdown announced***
Aramid	Richmond, VA *Kevlar* (yarn), *Nomex* (yarn, staple & tow)
Nylon 66	Seaford, DE, Camden, SC, Chattanooga, TN and Martinsville, Richmond & Waynesboro, VA *Antron* (yarn, monofil, staple & tow)
Polyester	Kinston & Wilmington, NC, Camden & Charleston, SC *Dacron* (yarn, staple, tow & fiberfill)
Spandex	Waynesboro *Lycra* (fused multifil or coalesced monofil)

POLYMER PRODUCTS DEPARTMENT

Nylon 6, 66, 612 & Polyester	Parkersburg, WV *Dacron, Dymetrol, Tynex, Vylor* (monofil of 50 denier & coarser)

EASTMAN KODAK COMPANY - EASTMAN CHEMICAL COMPANY

Acetate	Kingsport, TN *Chromspun, Estron* (yarn)
Polyester	Kingsport, TN *Kodel* (staple)

FIBER INDUSTRIES (a Wholly Owned Subsidiary of Wellman, Inc.)

Polyester	Fayetteville, NC & Darlington, SC *Fortrel* (yarn & staple)

FIRESTONE FIBERS & TEXTILES COMPANY, DIVISION OF BRIDGESTONE/FIRESTONE, INC.

Polyester	Hopewell, VA (yarn)

FOSS MANUFACTURING CO., INC. •

Polyester	Haverhill, MA (staple - captive)

GATES FORMED FIBER PRODUCTS, INC.

Polyester	Auburn, ME (staple)

GLOBE MANUFACTURING CO.

Spandex	Fall River, MA & Gastonia, NC *Cleerspan, DC_{100}, DC_{700}, Glospan* (fused multifil)

THE GOODYEAR TIRE & RUBBER COMPANY, POLYESTER DIVISION

Polyester	Scottsboro, AL & Point Pleasant, WV (yarn - captive)

GOLCO •

Nylon	Cartersville, GA (yarn)

GUILFORD FIBERS GUILFORD MILLS, INC.

Nylon 6	Gainesville, GA (monofil)
Polyester	Fuquay-Varina, NC (yarn & monofil)

GULF FIBERS INC.

Nylon 6	Le Moyne, Mobile County, AL (monofil)

UNITED STATES OF AMERICA (continued)

HOECHST CELANESE CORPORATION

Acetate	Rock Hill, SC *Celriver* and Narrows, VA *Celco* (yarn, staple & tow)
Polyester	Salisbury & Shelby, NC and Spartanburg, SC *Ceylon, Comfort Fiber, ESP, Loftguard Polar-Guard, Premafill Soft, Premafill Plump Serene, Superba, Trevira* (yarn, staple, tow, highloft & spunbonded)
PBI	Rock Hill (staple)

IMAGE CARPETS, INC.

Polyester	Armuchee, GA (staple)

JAMES RIVER CORP. •

Nylon 6/66	Cantonment, FL *Cerex* (spunbonded)
Polyester	Milford, NJ and Simpsonville, SC, *Polyweb* (thermal bond & meltblown)

JOHNSON FILAMENTS, INC. •

Nylon 6/66	Williston, VT (monofil)
Polyester	Williston (monofil)

KAYSER-ROTH CORPORATION YARN MANUFACTURING DIVISION

Nylon 66	Creedmoor, NC (yarn - captive)

KETEMA INC., SPECIAL FILAMENTS DIVISION •

Nylon 6, 66, 612 & 610	Odenton, MD (monofil)
Polyester	Odenton (monofil)
Saran	Odenton (monofil)

MANN INDUSTRIES, INC.

Acrylic	Williamsburg, VA *Zefran, Zefkrome* (staple)

MONOFILAMENTS, INC.

Nylon 6/66	Waynesboro, VA (monofil)
Polycarbonate	Waynesboro (monofil)
Polyester	Waynesboro (monofil)

MONSANTO CHEMICAL COMPANY FIBERS AND ENGINEERED PRODUCTS DIVISION

Acrylic	Decatur, AL *Acrilan, Acrilan II, Bi-Loft, Cy-Fana, Du-Rel, Fi-Lana II, Pa-Cel, Pil-Trol, So-Lara, So-Cel* (staple & tow)
Modacrylic	Decatur *SEF, SEF Plus* (staple & tow)
Nylon 66	Pensacola, FL & Greenwood, SC *No-Shock, Ultron* (yarn, monofil & staple)

NORTH AMERICAN POLYESTER CORPORATION (subsidiary of North American Rayon Corporation)

Polyester	Elizabethton, TN (staple)

NORTH AMERICAN RAYON CORPORATION

Rayon	Elizabethton, TN (ind & reg yarn & tow)

PHILLIPS FIBERS CORPORATION • (subsidiary of Phillips 66 Company)

Sulfar	Rocky Mount, NC *Ryton* (staple)

UNITED STATES OF AMERICA (continued)

REEMAY, INC. •

Polyester	Old Hickory, TN *Reemay* (spunbonded)

SHAKESPEARE COMPANY, MONOFILAMENT DIVISION •

Nylon 6/66/610	Columbia, SC (monofil thread)
Polyester	Columbia (monofil thread)

STAR FIBERS, INC.

Nylon 6/66	Edgefield, SC *Starbrite* (staple)

TOLARAM FIBERS, INC.•

Nylon 66	Ansonville, NC (yarn)
Polyester	Ansonville & Asheboro (yarn)

WELLMAN, INC., MAN-MADE FIBER DIVISION

Nylon 6/66	Johnsonville, SC *Wellon, Wellstrand* (staple, tow & tops)
Polyester	Johnsonville *Fillwell, Fortrel, Wellene, Wellstrand* (staple & tow)

YKK ZIPPER CO.

Polyester	Macon, GA (yarn)

OLEFIN FIBER

ACS INDUSTRIES, INC. Woonsocket, RI (P yarn, monofil & multifil)

ALADDIN MILLS, INC. Dalton, GA (P yarn)

ALBANY INTERNATIONAL - MONOFILAMENT PLANT Homer, NY (P monofil)

ALLIED-SIGNAL, INC. ENGINEERED MATERIALS SECTOR, FIBERS DIVISION Chesterfield, VA *Spectra* (E yarn & staple)

AMERICAN MANUFACTURING COMPANY
LAFAYETTE ROPE DIVISION Lafayette, LA *Amco, American, Bondtie, Floterope, Ultraline* (E & P monofil & film)

AMERICAN POLYCRAFT, INC. Dalton, GA (P yarn & film)

AMOCO FABRICS & FIBERS COMPANY Andalusia & Roanoke, AL, Bainbridge, Hazlehurst & Nashville, GA, Salisbury, NC & Afton, VA *Amoweve, Condesa, Genesis, Marquésa Lana, Marquésa Lana ST, Patlon, Patlon Plus, Propex III, Synera* (P yarn, monofil, film & staple)

ARLIN MFG. CO., INC. Lowell, MA (P film)

BEAULIEU OF AMERICA, INC. Bridgeport, AL & Dalton, GA (P yarn)

BERKLEY & CO. INC. Spirit Lake, IA (E & P monofil - captive)

BLUE MOUNTAIN INDUSTRIES Blue Mountain, AL *Poly Tying Twines, Polylasting, TY-EZ Polytapes* (E & P film)

BRIDON CORDAGE INC. Albert Lea, MN (P film cordage)

BURLINGTON INDUSTRIES, INC. Greensboro, NC (P yarn)

CALIFORINA WEBBING INDUSTRIES, INC. Los Angeles, CA (P yarn)

UNITED STATES OF AMERICA (continued)

CARRIAGE INDUSTRIES Calhoun, GA (P yarn)

CHASE PACKAGING CORPORATION Portland, OR (P film industrial goods)

CIRTEX Dalton, GA (P film)

COLOR-FI, INC. Sumter, SC (staple)

COLUMBIAN ROPE COMPANY Guntown, MS *Polypro 6* (E & P monofil & film)

CROWE ROPE COMPANY Warren, ME *Crowelon* (P monofil & film)

CUMBERLAND MILLS, INC. Dalton, GA (P yarn)

CUTLASS CARPET COMPANY Dalton, GA (P yarn)

DIAMOND MILLS, INC. Eton, GA (P yarn & film)

DORSETT CARPET MILLS INC. BCF YARN DIVISION Chatsworth, GA (P yarn)

E.I. DU PONT DE NEMOURS & COMPANY (INC.), FIBERS DEPARTMENT Richmond, VA *Tyvek* (E spunbonded), Chattanooga, TN (P yarn)

ELIZABETH WEBBING MILLS CO., INC. Central Falls, RI (P yarn & film)

ENSIGN-BICKFORD INDUSTRIES, INC., FILM FIBERS DIVISION Simsbury, CT *E-B Mesh®*, chopped fibers for concrete (P film)

EXXON CHEMICAL COMPANY, CONSTRUCTION, FABRICS & AGRICULTURAL Kingman, KS; Summerville, SC and Clearfield, UT (P monofil & film)

FIBERS & FABRICS OF GEORGIA, INC. (subsidiary of Georgia Synthetics, Inc.) Elberton, GA (PP yarns, fibrillated, roll embossed filaments & slit tape)

FIBRES SOUTH, INC. Trussville, AL *Polystar, Trustite, Tyrite* (P film, monofil, tapes & staple)

FILAMENT FIBER TECHNOLOGY INCORPORATED Bay Head, NJ and Salisbury, NC (P fine denier yarn)

FNT INDUSTRIES INC. Menominee, MI (E monofil)

FOSS MANUFACTURING CO., INC. Haverhill, MA (P staple - captive)

GENERAL FIBERS & FABRICS, INC. La Grange, GA (P film)

GEORGIA SYNTHETICS, INC. Elberton, GA (PP carpet backing, industrial fabrics)

GFF HOLDING COMPANY (formerly N.S.I., INC.) Soperton, GA (P film - captive)

GOLCO Cartersville, GA (P yarn)

UNITED STATES OF AMERICA (continued)

HERCULES INCORPORATED, ABSORBENT AND TEXTILE PRODUCTS GROUP Oxford, GA *Elustra, Herculon, Nouvelle* (P yarn & staple)

THE HOOVEN & ALLISON COMPANY Xenia, OH (P film)

INTERLOOM LTD. (formerly Concorde Fibers Inc.) Dalton, GA (P yarn)

J & J INDUSTRIES Dalton, GA (P yarn)

JAMES RIVER CORPORATION Milford, NJ, Simpsonville, SC and Washougal WA *Celestra, Fibretex* (P spunbonded)

JOHNSON FILAMENTS Williston, VT (P monofil)

KETEMA INC., SPECIAL FILAMENTS DIVISION Odenton, Md (E & P monofil)

KIMBERLY-CLARK CORPORATION Corinth, MS, Balfour, NC, La Grange, GA & Neenah, WI *Accord, Duraguard, Evolution* (P spunbonded); *Cyclean, Evolution III* (P spunbonded/meltblown laminate)

LAMBETH CORPORATION New Bedford, MA *Lambeth* (E & P monofil)

LAWRENCE HOSE COMPANY Burlington, NC (E monofil - captive)

LORETEX CORPORATION Guilderland Center, NY (E film-captive)

MIRAFI INC (subsidiary of Dominion Textiles) Moultrie, GA (P film - captive)

ORIAN Anderson, SC (P yarn)

THE OSTERNECK COMPANY Lumberton, NC (P film)

PHILLIPS FIBERS CORPORATION (subsidiary of Phillips 66 Company) Rocky Mount, NC, Seneca & Spartanburg, SC, *Alpha, Marvess* (P yarn, staple & tow)

POLI-TWINE WESTERN INC. Clearfield, UT (P monofil, P film, rope & cordage)

POLYLOOM CORPORATION OF AMERICA Dayton, TN *Polyloom* (P split film)

PRINCETON (CARPET IND. OF N.A.) Adairsville, GA (P yarn)

REEMAY, INC. Old Hickory, TN *Typar, Typelle, Tekton, Biobarrier* (P spunbonded)

SARLON INDUSTRIES, INC. Miami, FL (P monofil & film)

SHAKESPEARE MONOFILAMENT DIVISION Columbia, SC (P monofil)

SHAW INDUSTRIES (formerly Armstrong World Industries, Inc.) Charlotte, NC (P film- captive)

SHENANDOAH FIBERS, INC. Front Royal, VA* (P staple)

UNITED STATES OF AMERICA (continued)

SHUFORD MILLS, INC. Hickory, NC (P film cordage & twine)

SOLUTION FIBERS INC. Lafayette, GA *Better Body, Luxene* (P yarn)

SOUTHERN WEAVING, INC. Greenville, SC (P yarn)

STEVENS FIBER DIVISION, STEVENS LINEN ASSOC., INC. Dudley, MA (P staple)

SUNSHINE ROPE MANUFACTURING INC. Miami, FL (E & P monofil, cordage)

SYNTHETIC INDUSTRIES Chickamauga & Dalton, GA (P film, yarn & staple)

SYNTHETIC INDUSTRIES, FIBRON DIVISION Chattanooga TN *Fibri-Cord, Fibri-Knit, Fibrilawn, Fibrilon* (P film)

TECHLON FIBERS CORPORATION Dalton, GA (P yarn)

TECHNOTRADE Dalton, GA (P yarn)

TOLARAM FIBERS, INC. Ansonville, NC (P yarn)

TWINE PRODUCTS CORPORATION New Orleans, LA (P film)

UNITED STATES ROPE COMPANY Menlo Park, CA (P monofil)

WALL INDUSTRIES, INC. Granite Quarry, NC (E & P monofil, rope & cordage)

WALTRICH PLASTIC CORPORATION Walthourville, GA (P monofil)

WAYN-TEX, INC. Waynesboro, VA *Beamette, Waymtuf* (E & P monofil & P film - captive, spunbonded)

WELLINGTON PURITAN MILLS (MONTAIR DIV.) Pilot Mountain, NC *Pur-Ty, Weltrie* (P yarn & E & P monofil & film)

WELLINGTON SYNTHETIC FIBRES, INC. Leesville & Summerville, SC (P yarn & monofil)

TEXTILE PRODUCTS FROM OLEFIN

CONTINENTAL (P yarn)

CONWED CORP. Conwed Plastic Netting (P embossed film for netting)

DICEY (P yarn)

E.I. DU PONT DE NEMOURS & COMPANY (INC.) (E & P embossed film for netting)

HERCULES INCORPORATED, POLYMERS DIVISION *Delnet* (E embossed film for netting)

NALLE, INC. (P embossed film for netting)

RIEGEL PRODUCTS CORPORATION *Polyweb* (P meltblown)

THE 3M COMPANY (P spunbonded)

UNITED STATES OF AMERICA (continued)

GLASS FIBER

CERTAINTEED CORPORATION, FIBER GLASS REINFORCEMENTS DIVISION Wichita Falls, TX *RO99, SatinGlass, Stitchmat, Unifilo* (roving, woven roving, mat, chopped strand & combination product)

FIBER GLASS INDUSTRIES, INC. Amsterdam, NY (roving & chopped, woven, mats)

GAF BUILDING MATERIALS CORPORATION Irwindale, CA (chopped), Nashville, TN (chopped)

GFT, INC. (GLASS FIBER TECHNOLOGY) Chester, SC (wet chop for shingles)

LUNDY TECHNICAL CENTER Pompano Beach, FL *RoM#Oglas* (metallized glass fiber roving & strand and nonwoven metallized glass mat)

MANVILLE SALES CORPORATION, MATS, FIBER & REINFORCEMENTS DIVISION Waterville, OH; Etowah, TN & Ennis, TX *Chop-Pak, Dura-Glass, Star Stran, Star Rov, Tempstran, Star Tex* (mat, chopped strands, sliver, rovings & microfibers)

NICOFIBERS CO. Shawnee, OH *Conformat, Surmat* (mat, yarn & strand)

NITTOBO-SCHWEBEL CORPORATION* (yarn)

OWENS-CORNING FIBERGLAS CORPORATION Huntingdon, PA; Aiken & Anderson, SC and Amarillo, TX *Araton, Beta, Bi-Ply, Creel-Pak, ECRGLAS Type 30, Fiberglas, S-Glass, S-2 Glass* (yarn, roving, woven roving, mat, chopped & milled)

PPG INDUSTRIES, INC. FIBER GLASS Lexington & Shelby, NC (yarn, roving, woven roving, mat, chopped & milled, and rubber reinforcement)

SUPERIOR GLASS FIBERS, INC. Bremen, OH (mat)

URUGUAY

HILADOS SINTETICOS S.A. (HISISA)
Nylon 66 — Estacion Manga, Montevideo *Hisilon* (yarn)

POLIMEROS URUGUAYOS S.A.
Polyester — San José, San José (staple)

SINTETICOS SLOWAK S.A.
Nylon 6 — Montevideo *Crofil* (yarn & monofil)
Nylon 66 — Montevideo *Hisilon* (yarn)
Polyester — Montevideo *Terpol* (yarn)

SUDAMTEX del URUGUAY S.A.
Acetate — Colonia (yarn)

OLEFIN FIBER

ARYN S.A. Montevideo (E monofil)

CINCA S.A. Montevideo (E film)

ELABORADORA DE ARPILLERA SINTETICA S.A. (E film)

VENEZUELA

C.A. INVERSIONES ARAGUA
Nylon 6 — Maracay *Sudalon* (yarn)

GOMELAST, C.A.
Spandex — Caracas *Spandavan* (yarn)

HILADOS FLEXILON
Nylon 6 — Caracas (yarn)
Polyester — Caracas (yarn)

MANTEX, C.A.
Acetate — Valencia (yarn)
Polyester — Maracay, Valencia *Fortrel* (yarn & staple)

SUDAMTEX DE VENZUELA, C.A.
Polyester — Maracay (yarn & staple)

YUGOSLAVIA

HEMTEKS
Polyester — Skopje, Macedonia *Maklen* (yarn & staple)

INCEL FABRIKA CELULOZE I VISKOZE
Polyester — Banja Luka, Bosna i Hercegovina *Belira* (yarn)
Rayon — Banja Luka (staple)

INDUSTRIJA SINTETICKIK VLAKANA (PROGRES)
Nylon 6 — Prizren, Kosovo Mitohijan *Supralon* (yarn)
Polyester — Istok, Kosovo Mitohijan & Prizren *Prizrenit* (yarn)

KEMICNA TOVARNA MOSTE
Nylon 6 — Ljubljana, Slovenia *Yulon* (yarn)

ORGANSKO HEMIJSKA INDUSTRIJA SKOPJE (OHIS)
Acrylic — Skopje, Macedonia *Makrolan, Malon* (staple)

TEKSTILNA INDUSTRIYA "ZELE VELJKOVIC"
Nylon 6 — Leskovac* (yarn & staple)

VARAZDINSKI TEKSTILNI KOMBINAT (VARTEKS)
Polyester — Varazdin (staple)

VISKOZA
Rayon — Loznica, Serbia (ind & reg yarn & staple)

OLEFIN FIBER

HEMIJASKA INDUSTRIJA U OSNIVANJU Belgrade (P staple)

GLASS FIBER

GOSTIVAR STAKLARA Staklara (roving & mat)

WORLDWIDE MANUFACTURED FIBER PRODUCER AFFILIATIONS & PERCENTAGE OF CAPITAL OWNERSHIP

Licensing and royalty agreements are not taken into account. The ownership of companies, other than manufactured fiber producers, is not listed; e.g., weaving mills, chemical producers, etc.

For each country, the percentage following the first-named producer is the portion owned by the captioned company; the remainder of the entry shows other ownership. For example, Akzo N.V. owns 40% of Fibras Quimicas and Alfa-Group owns 60%.

AKZO N.V. (NETHERLANDS)

Brazil	Companhia Bahiana de Fibras 82%; others 18%
	Polyenka 51%; others 49%
Colombia	Enka de Colombia 49%; others 51%
Ecuador	Enkador 49%; others 51%
Germany, Fed. Rep.	Enka 97%; public 3%
India	Century Enka 40%; others 60%
Mexico	Fibras Quimicas 40%; Alfa-Group 60%
Netherlands	Enka 100%
	Silenka 33.33%; PPG Industries 33.33%; others 33.33%
Spain	La Seda 58%; others 42%

AMERICAN CYANAMID COMPANY (U.S.A.)

U.S.A.	Fibers Division 100%

AMOCO CHEMICALS CORPORATION (U.S.A.)

Australia	Amoco Chemicals Pty. Ltd. 100%
Brazil	Propex do Brasil Produtos Sineticos Ltda. 100%
Canada	Amoco Fabrics & Fibers Ltd. 100%
Germany, Fed. Rep.	Amoco Deutschland G.m.b.H. 100%
U.K.	Amoco Fabrics (U.K.) Ltd. 100%
U.S.A.	Amoco Fabrics & Fibers Co. 100%

ASAHI CHEMICAL INDUSTRY CO. LTD. (JAPAN)

India	Baroda Rayon Corp. 1%; local interests 69%; others 10%
Indonesia	P.T. Indonesia Asahi Chemical 51%; others 19%; local interests 30%
Ireland	Asahi Synthetic Fibres (Ireland) 85%; others 15%
Japan	Asahi Chemical 100%
Korea, Rep. of	Tong Yang Polyester 50%; Tong Yang Nylon 50%

BASF CORPORATION

BASF Corporation Fibers Division is a division of BASF Corporation.

BASF Fibres Inc. is a subsidiary of BASF Corporation and is owned 100% by BASF Corporation.

BAYER A.G. (WEST GERMANY)

Belgium	Bayer Antwerpen N.V. 100%
Germany, Fed. Rep.	Bayer A.G. 100%
	Faserwerke Lingen G.m.b.H. 100%
Peru	Bayer Industrial S.A. 60%

COURTAULDS, PLC (U.K.)

France	Courtaulds Fibres S.A. 100%
Italy	Novaceta S.p.A. 50%; SNIA 50%
Spain	Courtaulds Espana S.A. 100%
	INACSA 12%; public 88%
U.K.	Courtaulds Fibres Ltd. 100%
U.S.A./Canada	Courtaulds Fibers Inc. 100%

E. I. DU PONT DE NEMOURS & COMPANY (U.S.A.)

Argentina	Ducilo 82%; Bunge & Born 18%
Brazil	Du Pont do Brasil 100%
Canada	Du Pont Canada 75%; public 25%
Germany, Fed. Rep.	Du Pont de Nemours (Deutschland) 100%
Japan	Toray-Dupont 50%; Toray Industries 50%
Luxembourg	Du Pont Fibres 100%
Mexico	Nylon de Mexico 40%; Alfa-Group 51%; public 9%
Netherlands	Du Pont de Nemours (Nederland) 100%
U.K.	Du Pont (U.K.) 100%
U.S.A.	Fibers Department 100%
	Polymer Products Department 100%

ENICHEM FIBRE S.p.A. (ITALY)

Italy	Carpol S.p.A. 100%
	Terbond S.p.A. 100%
	Alcantara S.p.A. 51%; Toray (J) 49%

FIRESTONE TIRE & RUBBER COMPANY (U.S.A.)

Canada	Firestone Textiles Co. 100%
U.S.A.	Firestone Fibers & Textiles 100%

HERCULES INCORPORATED (U.S.A.)

Italy	Moplefan 50%; Montedison 50%
U.S.A.	Hercules 100%

HOECHST A.G. (WEST GERMANY)

Austria	Austria Faserwerke; Hoechst Austria 51%; Lenzing 49%
Belgium	Hoechst Celanese 100%
Brazil	Hoechst Do Brasil Quimica e Farmaceutica S.A. 100%
Canada	Celanese Canada Inc. 56%; public 44%
Germany, Fed. Rep.	Hoechst A.G. 100%
	Zehlendorf 97%; others 3%
Mexico	Celanese Mexicana, S.A. 40%; public 60%
Portugal	Finicisa, Fibras Sinteticos S.A. 100%
	Hoechst Portuguesa S.A.R.L. 100%
South Africa	Hoechst South Africa 100%
U.K.	Hoechst Fibre Industries 100%
U.S.A.	Hoechst Celanese Corporation 100%

IMPERIAL CHEMICAL INDUSTRIES LIMITED (U.K.)

Germany, Fed. Rep.	ICI Europa Fibres G.m.b.H. 100%
India	Chemicals & Fibres of India Ltd. 55%
Pakistan	ICI Pakistan Manufacturers 70%
South Africa	S.A. Nylon Spinners (through AECI Ltd.) 38%
Spain	Nurel S.A. 100%
U.K.	ICI Fibres 100%

KURARAY CO., LTD. (JAPAN)

Japan	Kuraray 100%

MITSUBISHI RAYON (JAPAN)

Japan	Mitsubishi Rayon Co. Ltd. 100%
Portugal	FISIPE 8%; Mitsubishi Corp. 13%; Quimigal 64%, others 15%
Taiwan	Tong Hwa 19%; Mitsubishi Corp. 12%; others 69%

MONTEFIBRE S.p.A. (ITALY)

Italy	Industrie Tessili Vercelli S.p.A. 100%
Spain	Montefibre Hispania S.A. 100%

OWENS-CORNING FIBERGLAS CORPORATION (U.S.A.)

Belgium	Owens-Corning Fiberglas Europe 100%
Brazil	Fiberglas Fibras 100%
Canada	Fiberglas Canada 100%
France	Owens-Corning Fiberglas Europe 100%
Japan	Asahi Fiber Glass 28%; Asahi Glass Co., Ltd. 72%
Mexico	Vitro-Fibras 40%; Vitro Group 60%
Netherlands	Owens-Corning Fiberglas Netherlands 100%
Norway	Owens-Corning Fiberglas Europe 70%; Elkem-Spigerverket 30%
Spain	Owens-Corning Fiberglas Europe 100%
Sweden	Owens-Corning Fiberglas Europe 100%
U.S.A.	Owens-Corning Fiberglas 100%

PPG INDUSTRIES (U.S.A.)

Netherlands	Silenka 33.33%; Akzo N.V. 33.33%; NOM 33.33%
U.K.	PPG Glass Fibres Ltd. 100%
U.S.A.	Fiber Glass Products 100%
Venezuela	VFG Sudamtex 49%; Sudamtex 51%

PILKINGTON BROTHERS (U.K.)

Argentina	VASA 99.7%; Glaverbel/Boussois/local interests 0.3%
India	Fibreglass Pilkington 50%, plus 1 share; Indian interests 50%, less 1 share
South Africa	Fibreglass South Africa 24.5%; Owens-Corning Fiberglas (U.S.A.) 24.5%; Plate Glass & Shatterprufe Industries Ltd. 51%
U.K.	Fibreglass PLC 100%

RHÔNE-POULENC S.A. (FRANCE)

Argentina	Rhône-Poulenc Argentina S.A. 100%
Brazil	Rhodia S.A. 100%
France	Rhône-Poulenc-Fibres 100%, Cellatex 100%; Rhovyl 100%
Germany, Fed. Rep.	Rhodia A.G. 100%
Spain	Rhône-Poulenc Fibras S.A. 100%
Switzerland	Viscosuisse S.A. 100%

SAINT-GOBAIN (FRANCE)

France	Saint-Gobain Industries 100%
Germany, Fed. Rep.	Gevetex-Textilglas 100%
Italy	Vetrotex Italia 100%
Spain	Cristaleria Espanola S.A. 69%
U.S.A.	CertainTeed Corp. 55%; others 45%

SNIA FIBRE (ITALY)

France	Ets. Nysam 100%
Italy	Novaceta 50%; Courtaulds (U.K.) 50% Nuova Raion Italia S.p.A. 41.2%; others 58.8%

SYNTHETIC INDUSTRIES, INC.

Ireland	Synthetic Industries (Ireland) Ltd. 100%
U.K.	Synthetic Industries Ltd. 100%
U.S.A.	Synthetic Industries, Inc. 100% Fibron Company 100%

TEIJIN LTD. (JAPAN)

Indonesia	P.T. Tifico 65.8%; Toyo Menka 16.5%; local interests 17.7%
Japan	Teijin 100% Teijin Acetate 100%
Korea, Rep. of	Sunkyung Fibres 2.9%; local interests 97.1%
Thailand	Teijin Polyester 45%; local interests 55%

TORAY INDUSTRIES, INC. (JAPAN)

Indonesia	P.T. Indonesia Toray Synthetics 59%; others 41%
Japan	Toray Industries 100%; Toray-Monofilament 100%; Toray-DuPont 50%, DuPont 50%
Korea, Rep. of	Cheil Synthetic Textiles 22.8%; others 77.2% Kolon Industries 19.3%; others 80.7%
Malaysia	Penfibre SDN. Berhad 100%
Thailand	Toray Nylon Thai 30%; others 70%

WELLMAN, INC. (U.S.A.)

Ireland	Wellman International 100%
U.S.A.	Man-Made Fiber Division 100% Fiber Industries, Inc. 100%

TABLE 10:
SELECTED U.S. MANUFACTURED FIBER IMPORTS BY COUNTRY OF ORIGIN
THOUSAND POUNDS

ITEMS & COUNTRY	1990 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR TO DATE 1990	1989
ARTIFICIAL (CELLULOSIC) YARN, MONOFIL & STRIPS														
AUSTRIA	67	3	1	89									160	7
BRAZIL	26	53	53	74									206	270
CANADA	628	303	171	405									1507	2670
CHILE	0	309	66	44									419	110
GERMANY, FED. REP. OF	422	516	844	684									2466	2497
IRELAND	145	0	36	35									216	211
JAPAN	104	72	111	104									391	486
KOREA, REP. OF	0	22	33	22									77	144
MEXICO	102	4	121	78									305	471
NETHERLANDS	282	264	345	178									1069	734
UNITED KINGDOM	34	22	60	0									116	415
ALL OTHER COUNTRIES [a]	21	56	22	49									148	127
TOTAL ARTIFICIAL YARN	**1831**	**1624**	**1863**	**1762**									**7080**	**8142**
ARTIFICIAL (CELLULOSIC) STAPLE+TOW+TOPS														
AUSTRIA	319	493	108	1254									2174	1348
CANADA	4973	3854	4391	4333									17551	14302
CHINA, PRC	0	0	0	0									0	473
GERMANY, DEM. REP.	0	0	0	0									0	138
GERMANY, FED. REP. OF	89	134	257	322									802	346
JAPAN	143	204	126	131									604	1356
SWITZERLAND	0	27	0	14									41	112
TAIWAN	354	988	1323	964									3629	144
UNITED KINGDOM	89	93	73	37									292	538
ALL OTHER COUNTRIES [b]	337	301	183	136									957	775
TOTAL ARTIFICIAL STAPLE+TOW	**6304**	**6094**	**6461**	**7191**									**26050**	**19532**
SYNTHETIC (NONCELLULOSIC) YARN, MONOFIL & STRIPS														
ARGENTINA	0	0	43	34									77	76
BELGIUM	776	122	589	594									2081	342
BRAZIL	70	71	57	180									378	369
CANADA	3834	2895	4150	3775									14654	11731
COSTA RICA	762	517	497	462									2238	1763
ECUADOR	53	16	67	67									203	261
FRANCE	2007	1305	1065	1378									5755	4569
GERMANY, FED. REP. OF	2096	2021	1480	1546									7143	9590
ISRAEL	0	0	0	0									0	837
ITALY	892	434	593	905									2824	2979
JAPAN	760	658	505	573									2496	2256
KOREA, REP. OF	31	0	90	20									141	147
MEXICO	1393	900	1607	1396									5296	7911
NETHERLANDS	103	305	921	219									1548	863
SINGAPORE	16	16	0	0									32	58
TAIWAN	791	227	114	818									1950	2171
THAILAND	58	93	95	123									369	265
UNITED KINGDOM	1881	1492	2076	1029									6478	5897
ALL OTHER COUNTRIES [c]	413	319	196	121									1049	692
TOTAL SYNTHETIC YARN	**15936**	**11391**	**14145**	**13240**									**54712**	**52780**
SYNTHETIC (NONCELLULOSIC) STAPLE+TOW+TOPS														
AUSTRIA	0	53	11	11									75	25
AUSTRALIA	38	120	30	72									260	274
BELGIUM	1	16	0	158									175	262
CANADA	3703	2439	3082	2325									11549	5120
FRANCE	592	297	769	436									2094	1192
GERMANY, FED. REP. OF	1017	1236	1063	1205									4521	6354
INDIA	1731	1055	4215	0									7001	7172
IRELAND	0	26	0	0									26	1413
ITALY	422	318	534	204									1478	1128
JAPAN	1754	1763	2307	1539									7363	8603
KOREA, REP. OF	1786	1273	1778	2043									6880	13782
MEXICO	3590	2041	2015	2355									10001	2857
NETHERLANDS	1	0	57	20									78	314
SPAIN	35	0	0	0									35	225
SWITZERLAND	399	124	87	385									995	611
TAIWAN	888	572	931	1400									3791	1520
TURKEY	112	114	0	0									226	18
UNITED KINGDOM	2249	1868	2834	2159									9110	8372
ALL OTHER COUNTRIES [d]	549	326	137	92									1104	156
TOTAL SYNTHETIC STAPLE+TOW	**18867**	**13641**	**19850**	**14404**									**66762**	**59398**

a. Ecuador 33, India 33, Italy 33, France 18, Uruguay 13, Belgium 12, Thailand 3, Taiwan 2, Hong Kong 1.

b. Poland 384, Sweden 310, Finland 117, Thailand 66, France 59, Netherlands 19, Italy 2.

c. Portugal 387, Spain 194, Paraguay 83, Ireland 82, Turkey 68, Switzerland 52, Hong Kong 38, El Salvador 34, Sweden 34, Morocco 23, Finland 21, Austria 9, Yugoslavia 8, Haiti 6, Honduras 5, Greece 3, Dominican Republic 2.

d. Venezuela 395, Thailand 209, Sweden 180, China, PRC 92, Malaysia 88, Hong Kong 64, Poland 47, Brazil 27, Denmark 2.

TABLE 11:
U.S. MANUFACTURED FIBER IMPORTS
THOUSAND POUNDS

ITEM	1990 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR TO DATE 1990	1989
ARTIFICIAL (CELLULOSIC) FIBER														
FILAMENT YARN														
HIGH TENACITY	242	208	240	163									853	993
TEXTURED	54	8	0	33									95	205
OTHER	1385	1371	1471	1528									5755	6538
MONOFILAMENTS & STRIPS	150	37	152	38									377	406
SUBTOTAL ABOVE	**1831**	**1624**	**1863**	**1762**									**7080**	**8142**
STAPLE	5989	5884	6154	6846									24873	19432
TOW	312	210	307	342									1171	54
TOPS	3	0	0	3									6	46
SUBTOTAL ABOVE	**8304**	**8094**	**8461**	**7191**									**29050**	**19532**
WASTE	**0**	**0**	**0**	**22**									**22**	**400**
SYNTHETIC (NONCELLULOSIC) FIBERS														
FILAMENT YARN														
NYLON														
HIGH TENACITY	1435	856	1437	1000									4728	5214
TEXTURED														
UP TO 450 DENIER	270	333	253	336									1194	1246
OVER 450 DENIER	2936	1350	2132	3039									9457	5087
OTHER	4531	3817	4273	2090									14711	14757
MONOFILAMENTS & STRIPS	216	117	148	191									672	402
SUBTOTAL ABOVE	**9388**	**6473**	**8243**	**6658**									**30762**	**26706**
POLYESTER														
HIGH TENACITY	614	408	506	421									1949	3234
TEXTURED	785	643	626	923									2977	6060
POY	719	119	117	758									1713	1770
OTHER	2038	1457	1459	1683									6637	6092
MONOFILAMENTS & STRIPS	53	0	67	40									160	234
SUBTOTAL ABOVE	**4209**	**2627**	**2775**	**3825**									**13436**	**17390**
OTHER SYNTHETIC FILAMENT														
TEXTURED	1451	1408	2224	1880									6963	6346
OTHER	277	223	301	276									1077	1260
MONOFILAMENTS & STRIPS	611	660	602	601									2474	1078
SUBTOTAL ABOVE	**2339**	**2291**	**3127**	**2757**									**10514**	**8684**
STAPLE														
NYLON	4048	3037	4055	3032									14172	7059
POLYESTER	9261	5813	9622	6652									31348	31852
ACRYLIC	1711	1729	2063	1586									7089	6056
POLYPROPYLENE	543	37	160	27									767	647
OTHER	196	190	320	146									852	2603
TOW														
NYLON	409	308	555	385									1657	1431
POLYESTER	15	70	70	2									157	305
ACRYLIC	2512	1973	2649	2252									9386	7381
OTHER	70	5	35	105									215	383
TOPS	102	479	321	217									1119	1681
SUBTOTAL ABOVE	**18867**	**13641**	**19850**	**14404**									**66762**	**58398**
WASTE														
NYLON	2694	2074	1628	1933									8329	7616
POLYESTER	2703	2241	1882	1067									7893	3098
OTHER	444	571	1027	602									2644	2084
TOTAL MANUFACTURED FIBERS ABOVE	**48779**	**37636**	**46656**	**40221**									**173492**	**153059**
OTHER MFRD. FIBER YARN & THREAD														
SEWING THREAD														
FILAMENT	115	59	54	62									290	385
SPUN YARN	427	503	318	594									1842	1545
SPUN YARNS														
SYNTHETIC	2420	2155	2639	1902									9116	18619
ARTIFICIAL	0	0	0	0									0	0
PUT UP FOR RETAIL SALE	32	24	70	34									160	185
GRAND TOTAL ABOVE	**51773**	**40377**	**49937**	**42813**									**184900**	**173784**

SOURCE: U.S. Census Bureau Report IM145X

TABLE 12:
U.S. MANUFACTURED FIBER EXPORTS
THOUSAND POUNDS

ITEM	1990												YEAR TO DATE	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	1990	1989
ARTIFICIAL (CELLULOSIC) FIBER														
FILAMENT YARN														
HIGH TENACITY	92	37	44	6									179	93
TEXTURED	217	9	30	284									540	510
OTHER	66	106	57	64									293	835
MONOFILAMENTS & STRIPS	97	0	15	11									123	190
SUBTOTAL ABOVE	472	152	146	365									1135	1628
STAPLE	1195	2051	1838	1329									6413	6858
TOPS	333	0	203	187									723	231
SUBTOTAL ABOVE	1528	2051	2041	1516									7136	7089
WASTE	330	407	614	547									1898	4565
SYNTHETIC (NONCELLULOSIC) FIBERS														
FILAMENT YARN														
NYLON														
HIGH TENACITY	7357	7357	9332	8892									33338	43239
TEXTURED														
UP TO 450 DENIER	1571	588	626	2098									4883	2493
OVER 450 DENIER	5636	4353	5225	4130									19344	19646
OTHER	2637	2264	3143	2401									10445	8462
MONOFILAMENTS & STRIPS	8	32	93	33									166	815
SUBTOTAL ABOVE	17609	14594	18419	17554									68176	74655
POLYESTER														
HIGH TENACITY	4308	5166	5459	4737									19670	12208
TEXTURED	3074	3021	4078	3508									13681	12652
POY	1831	2368	1287	1783									7269	5839
OTHER	1297	1748	1824	1275									6142	3403
MONOFILAMENTS & STRIPS	185	285	91	93									654	756
SUBTOTAL ABOVE	10695	12586	12739	11396									47416	34858
OTHER SYNTHETIC FILAMENT														
TEXTURED	535	523	549	801									2408	3265
OTHER	2035	2007	2279	2972									9293	6278
MONOFILAMENTS & STRIPS	876	913	1664	1218									4671	2995
SUBTOTAL ABOVE	3446	3443	4492	4991									16372	12538
STAPLE														
NYLON	3163	2765	2343	3257									11528	11761
POLYESTER	7157	6405	9490	7701									30753	50673
ACRYLIC	4584	3178	3882	3936									15580	22539
POLYPROPYLENE	2038	1561	2666	3226									9491	6298
OTHER	2688	923	1504	961									6076	6923
TOW														
NYLON	121	176	155	304									756	239
POLYESTER	18	64	0	100									182	1707
ACRYLIC	1710	1787	989	956									5442	8285
OTHER	26	12	15	243									296	714
TOPS	3984	2729	2309	4760									13782	5226
SUBTOTAL ABOVE	25489	19600	23353	25444									93886	114365
WASTE														
NYLON	4117	4250	3894	2746									15007	9287
POLYESTER	3268	2845	2782	3321									12216	17073
OTHER	3343	3700	4979	4352									16374	26881
TOTAL MANUFACTURED FIBERS ABOVE	70297	63628	73459	72232									279616	302939
OTHER MFRD. FIBER YARN & THREAD														
SEWING THREAD														
FILAMENT	28	45	32	25									130	181
SPUN YARN	0	0	0	0									0	0
SPUN YARNS														
SYNTHETIC	3007	4304	3749	4278									15338	11664
ARTIFICIAL	0	0	0	0									0	0
PUT UP FOR RETAIL SALE	267	398	641	746									2072	2849
GRAND TOTAL ABOVE	73619	68375	77881	77281									297156	317633

SOURCE: U.S. Census Bureau Report EM522.

TABLE 13:
FILAMENT YARN DOMESTIC SHIPMENTS [a]

MILLION POUNDS

ITEM		ANNUAL DATA 1986	1987	1988	1989	QUARTERLY DATA 1989 1ST Q	2ND Q	3RD Q	4TH Q	1990 1ST Q	2ND Q	3RD Q	4TH Q
(C) ARTIFICIAL (CELLULOSIC) YARN			*(N) NYLON*				*(P) POLYESTER*				*(O) OLEFIN*		
HOSIERY [b]	N	95.1	93.2	100.3	j	j	j	j		j			
OTHER CIRCULAR KNIT [c]	N	21.3	25.3	26.4	139.1	32.5	33.8	34.8	38.0	29.8			
	P	150.3	102.8	119.5	132.4	40.4	33.5	31.1	27.4	22.7			
	C	2.0	1.1	0.6	0.5	0.2	0.1	0.1	0.1	0.2			
FLAT KNIT	C	47.8	27.9	24.3	21.4	6.1	7.5	3.7	4.1	5.1			
	N	133.8	131.4	133.4	125.2	36.0	34.4	29.8	25.0	23.3			
	P	167.1	162.5	162.1	181.0	46.0	47.7	44.5	42.8	38.7			
CARPET FACE	N	881.4	916.0	938.3	932.3	225.0	233.8	243.7	229.8	239.6			
	O	215.7	244.5	266.6	249.9	69.0	63.3	60.2	57.4	83.5			
CARPET BACKING [d]	O	404.1	425.3	427.0	463.4	105.4	123.4	120.6	114.0	108.7			
OTHER BROAD WOVEN [e]	C	126.3	122.8	141.9	149.4	35.6	38.5	37.8	37.5	33.8			
	N	76.2	79.4	78.3	88.8	21.1	22.6	21.9	23.2	24.9			
	P	344.4	379.4	391.3	366.3	100.7	106.1	80.7	78.8	84.3			
	O	271.5	317.7	337.3	337.5	88.8	84.3	83.6	80.8	90.7			
NARROW WOVEN [f]	C	2.0	2.2	4.4	4.4	1.7	0.8	1.0	0.9	0.8			
	N	33.9	42.1	42.0	36.9	9.5	10.2	8.4	8.8	8.2			
	P	44.0	66.2	81.0	76.4	18.8	23.2	20.0	14.4	16.6			
	O	17.5	17.7	19.0	19.8	4.8	4.7	5.2	5.1	5.1			
TIRES, INCL. CHAFER [g]	N	134.2	143.0	132.2	135.7	34.3	33.6	32.6	35.2	31.0			
	P	159.3	162.8	171.8	169.3	41.7	43.6	42.3	41.7	40.9			
OTHER RUBBER INDUSTRY [c g]	N	15.2	16.4	20.4	18.1	4.5	4.4	5.0	4.2	5.0			
	P	27.2	34.5	25.2	32.7	6.3	8.2	8.9	9.3	8.6			
ROPE, CORDAGE & FISHLINE	N	36.4	37.9	36.4	34.2	8.8	9.2	7.9	8.3	9.5			
	P	13.0	13.4	12.5	14.4	3.2	3.8	3.5	3.9	4.0			
	O	106.3	106.7	120.3	125.6	33.5	30.4	24.9	36.8	28.6			
ALL OTHER [h]	C	14.0	12.8	11.4	11.6	2.4	3.4	3.0	2.8	0.2			
	N	52.1	69.6	64.7	65.0	16.2	17.7	16.8	14.3	11.2			
	P	187.1	191.8	194.0	138.2	34.9	37.5	33.1	32.7	25.9			
	O	34.1	23.6	29.6	29.8	6.5	9.4	7.1	6.8	11.2			
TOTAL ABOVE	C	192.1	166.8	182.6	187.3	46.0	50.3	45.6	45.4	40.1			
	N	1479.6	1554.3	1572.4	1575.3	387.9	399.7	400.9	386.8	382.5			
	P	1092.4	1113.4	1157.4	1110.7	292.0	303.6	264.1	251.0	241.7			
	O	1049.2	1135.5	1199.8	1226.0	308.0	315.1	301.6	300.9	327.8			
TOTAL DOMESTIC		3813.3	3970.0	4112.2	4099.3	1033.9	1069.1	1012.2	984.1	992.1			
ALSO DIVIDED AS													
APPAREL		*962.4*	*930.2*	*941.2*	*924.7*	*253.4*	*253.3*	*217.1*	*200.9*	*192.5*			
HOME FURNISHINGS		*1738.0*	*1838.4*	*1902.6*	*1927.2*	*468.6*	*498.1*	*489.9*	*470.6*	*501.8*			
INDUSTRIAL		*1112.9*	*1201.4*	*1268.4*	*1247.4*	*311.9*	*317.7*	*305.2*	*312.6*	*297.8*			
SHIPMENTS OF FEED & PRODUCER-TEXTURED YARN (NONCARPET) [i]													
NYLON		115.8	NA	NA	NA	NA	NA	NA	NA	NA			
POLYESTER		634.6	626.3	649.9	597.3	164.5	164.0	138.7	130.1	123.2			
OLEFIN		22.9	26.6	24.4	26.0	6.9	4.5	8.0	6.6	7.4			

NA No longer available.

a. Filament yarn plus monofilament shipments by primary trade or end use; olefin includes spunbonded polypropylene but does not include spunbonded polyethylene.

b. Small quantities of polyester and artificial (cellulosic) yarn are included in All Other.

c. Small quantities of olefin are included in All Other.

d. Small quantities of nylon and polyester are included in All Other.

e. Other Broad Woven except carpets, tire fabric, flat belting, etc.

f. Narrow Woven includes apparel ribbons and braids, auto seat belts and/or furniture webbing.

g. Artificial (cellulosic) yarn quantities included in All Other.

h. All Other includes sewing thread and other industrial applications. The olefin quantities include sliver knit backing. Also includes indirect exports.

i. These quantities are included in the Total Domestic area above.

j. Nylon quantities are included in Other Circular Knit.

TABLE 14:
STAPLE+TOW DOMESTIC SHIPMENTS

MILLION POUNDS

ITEM		ANNUAL DATA 1986	1987	1988	1989	QUARTERLY DATA 1989 1ST Q	1989 2ND Q	1989 3RD Q	1989 4TH Q	1990 1ST Q	1990 2ND Q	1990 3RD Q	1990 4TH Q
(R) RAYON [h]	*(N) NYLON*	*(A) ACRYLIC+MODACRYLIC*				*(P) POLYESTER*				*(O) OLEFIN*			
HOSIERY, SWEATERS & CRAFT YARNS [a]	A	228.8	192.4	183.2	174.5	48.4	47.3	41.5	37.3	41.0			
	NPR	5.0	3.5	2.7	2.1	0.6	0.4	0.5	0.6	0.6			
PILE FABRICS [b]	A	23.2	20.8	21.3	20.0	5.1	6.0	5.0	3.9	4.2			
	P	15.0	19.7	14.7	15.3	3.7	4.0	4.1	3.5	3.5			
OTHER CIRCULAR KNIT + FLAT KNIT [c]	R	4.7	3.7	2.5	NA	NA	NA	NA	NA	NA			
	A	196.3	185.1	139.0	132.4	35.7	34.9	36.4	25.4	32.5			
	P	367.8	453.3	470.0	519.5	127.8	131.4	132.0	128.3	123.4			
BLANKETS [b]	A	26.7	25.7	25.1	29.8	7.4	9.3	8.0	5.1	i			
	P	3.7	9.2	6.9	9.2	2.3	2.9	2.4	1.6	2.0			
OTHER BROAD WOVEN	R	218.0	230.7	243.0	NA	NA	NA	NA	NA	NA			
	N	37.0	38.7	35.2	32.7	8.1	7.8	8.7	8.1	6.2			
	A	35.3	41.7	39.3	40.5	12.6	11.5	7.9	8.5	13.1			
	P	885.6	839.2	863.5	821.8	200.8	226.4	197.6	197.0	170.9			
	O	18.0	20.2	17.1	33.4	5.2	9.0	9.1	10.1	10.4			
CARPET FACE YARNS [f]	R	0.4	+	0.4	NA	NA	NA	NA	NA	NA			
	N	837.8	905.1	887.7	894.9	226.3	217.3	230.3	221.0	230.2			
	P	145.0	209.0	261.2	211.6	60.1	51.3	48.6	51.6	48.0			
	O	117.2	116.2	138.2	137.7	38.5	35.1	32.9	31.2	34.2			
FIBERFILL [d]	P	294.9	348.6	357.2	349.5	90.4	93.6	79.2	86.3	75.6			
FLOCK	NP	5.9	5.5	6.9	7.5	1.8	1.7	1.7	2.3	1.9			
	R	1.8	0.9	0.1	NA	NA	NA	NA	NA	NA			
NONWOVENS [e]	R	125.4	124.4	122.3	NA	NA	NA	NA	NA	NA			
	N	2.1	1.9	2.1	2.4	0.7	0.6	0.6	0.5	0.6			
	P	175.4	204.2	244.1	271.5	68.0	71.7	65.8	66.0	63.5			
[g] VINYON+O		166.2	198.0	180.9	183.0	46.1	46.7	46.8	43.4	47.0			
ALL OTHER	R	20.8	22.7	17.2	NA	NA	NA	NA	NA	NA			
	N	11.9	14.8	13.7	17.8	5.3	3.8	4.3	4.4	3.9			
	A	20.9	13.6	13.2	17.4	3.7	3.4	4.0	6.3	8.0			
	P	108.3	115.0	91.3	61.0	21.5	12.9	13.0	13.6	14.8			
[g] VINYON+O		11.3	6.7	8.0	9.3	1.8	2.7	2.6	2.2	2.4			
TOTAL ABOVE	**R**	**373.0**	**383.1**	**386.0**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**			
	N	**894.9**	**966.0**	**944.9**	**955.3**	**242.0**	**231.2**	**245.8**	**236.3**	**242.6**			
	A	**531.2**	**479.3**	**421.1**	**414.8**	**112.9**	**112.4**	**102.8**	**86.7**	**98.8**			
	P	**1998.6**	**2201.0**	**2311.8**	**2261.3**	**575.4**	**594.6**	**543.0**	**548.3**	**502.5**			
[g] VINYON+O		**312.7**	**341.1**	**344.2**	**363.4**	**91.5**	**93.5**	**91.4**	**86.9**	**94.0**			
TOTAL DOMESTIC		**4110.4**	**4370.5**	**4408.0**	**3994.8**	**1021.9**	**1031.7**	**983.0**	**958.2**	**937.9**			
ALSO DIVIDED AS													
APPAREL		*1489.3*	*1479.9*	*1421.6*	*1266.8*	*323.3*	*347.1*	*313.4*	*283.0*	*278.8*			
HOME FURNISHINGS		*1625.8*	*1755.8*	*1827.5*	*1695.7*	*439.0*	*418.4*	*421.2*	*417.1*	*415.4*			
INDUSTRIAL		*995.3*	*1134.8*	*1158.9*	*1032.3*	*259.6*	*266.2*	*248.4*	*258.1*	*243.7*			

NA No longer available.

a. Olefin quantities are included in All Other.
b. Rayon and nylon quantities are included in All Other.
c. Nylon quantities are included in All Other.
d. Rayon, acrylic and nylon quantities are included in All Other.
e. Wet & dry laid and needled batts only.
f. Acrylic and nylon quantities are included in All Other.
g. 1987 - 1990 data exclude Vinyon.
h. Rayon staple+tow data no longer available in 1989 - 1990.
i. Acrylic quantites are included in All Other.

TABLE 15:
SELECTED U.S. MONTHLY FIBER DATA

MILLION POUNDS

ITEM	1990 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR TO DATE[a] 1990	1989
	MANUFACTURED FIBER TOTAL SHIPMENTS[b,c]													
ARTIFICIAL (CELLULOSIC)														
YARN	15.1	15.4	17.4	18.1	17.4								83.4	92.7
RAYON STAPLE	30.1	25.3	26.3	28.2	25.1								135.0	169.3
TOTAL ARTIFICIAL (CELLULOSIC)	45.2	40.7	43.7	46.3	42.5								218.4	262.0
SYNTHETIC (NONCELLULOSIC)														
YARN+MONOFILAMENTS														
NYLON - INDUSTRIAL[d]	24.9	30.3	28.4	28.4	28.8								140.8	155.6
- CARPET	86.5	81.1	82.2	85.6	80.1								415.5	397.7
- TEXTILE[f]	28.9	28.2	29.9	32.0	32.0								151.0	170.5
POLYESTER - INDUSTRIAL[d]	27.2	28.6	31.8	32.5	30.4								150.5	151.8
- TEXTILE[f]	56.6	56.2	58.0	69.8	68.4								309.0	374.0
OLEFIN[e]	104.5	113.9	114.1	119.2	119.9								571.6	529.6
TOTAL YARN	328.6	338.3	344.4	367.5	359.6								1738.4	1779.2
STAPLE+TOW+FIBERFILL														
NYLON	88.8	74.9	86.0	85.0	87.0								421.7	407.2
ACRYLIC+MODACRYLIC	40.4	39.7	43.2	39.7	43.0								206.0	237.4
POLYESTER	168.9	175.7	173.2	181.9	176.0								875.7	1032.7
OLEFIN	30.3	34.4	35.3	35.2	36.1								171.3	158.4
TOTAL STAPLE	328.4	324.7	337.7	341.8	342.1								1674.7	1835.7
TOTAL SYNTHETIC (NONCELLULOSIC)	657.0	663.0	682.1	709.3	701.7								3413.1	3614.9
TOTAL MANUFACTURED FIBER	702.2	703.7	725.8	755.6	744.2								3631.5	3876.9
	MANUFACTURED FIBER END-OF-MONTH STOCK													
ARTIFICIAL (CELLULOSIC)														
YARN	9.7	9.9	8.8	9.1	7.6								7.6	9.7
RAYON STAPLE	20.2	17.2	14.0	14.2	11.9								11.9	13.4
TOTAL ARTIFICIAL (CELLULOSIC)	29.9	27.1	22.8	23.3	19.5								19.5	23.1
SYNTHETIC (NONCELLULOSIC)														
YARN+MONOFILAMENTS														
NYLON - INDUSTRIAL[d]	36.8	33.7	33.4	36.0	30.1								30.1	24.2
- CARPET	60.5	61.2	62.6	63.2	65.4								65.4	64.0
- TEXTILE[f]	57.0	59.9	64.3	63.5	63.5								63.5	47.4
POLYESTER - INDUSTRIAL[d]	39.3	40.6	39.5	39.2	37.9								37.9	30.9
- TEXTILE[f]	94.5	104.9	109.9	106.4	99.7								99.7	85.0
OLEFIN[e]	68.1	66.6	66.0	63.9	63.9								63.9	58.5
TOTAL YARN	356.2	366.9	375.7	372.2	360.5								360.5	310.0
STAPLE+TOW+FIBERFILL														
NYLON	40.1	40.5	37.1	44.3	47.7								47.7	57.5
ACRYLIC+MODACRYLIC	69.5	70.9	72.8	75.3	78.9								78.9	65.2
POLYESTER	193.5	195.1	192.9	217.4	207.6								207.6	176.2
OLEFIN	34.6	33.4	31.5	29.8	28.5								28.5	35.2
TOTAL STAPLE	337.7	339.9	334.3	366.8	362.7								362.7	334.1
TOTAL SYNTHETIC (NONCELLULOSIC)	693.9	706.8	710.0	739.0	723.2								723.2	644.1
TOTAL MANUFACTURED FIBER	723.8	733.9	732.8	762.3	742.7								742.7	667.2
	WOOL & COTTON CONSUMPTION													
APPAREL CLASS WOOL														
CARPET CLASS WOOL														
TOTAL RAW WOOL[g]														
RAW COTTON	317.3	332.1	365.9	330.2									1345.5	1261.8

a. "Year to date" totals for stock, are the latest month's figures.
b. The monthly production of each fiber may be calculated as total shipments plus a stock increase, or less a stock decrease, over the month.
c. Producers' total domestic shipments plus export shipments.
d. Industrial is defined as 500 denier and coarser with an Instron tenacity of 7 grams or more per denier.
e. Olefin yarn+monofilaments also includes spunbonded polypropylene and film fiber produced for textile end uses.
f. Includes low denier industrial yarn.
g. **Wool data for 1990 available on a quarterly basis only.**

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- Domestic Shipments
- Exports
- Inventories
- Industrial Yarn
- Carpet Yarn
- Textile Yarn
- Flat Yarn
- Feed & Producer Textured Yarn
- Shipments by Denier
- Indirect Exports

Quarterly

- Production
- Domestic Shipments
- Imports
- Exports
- Shipments by Denier
- Inventories
- Primary End Use
- Secondary End Use
- Waste Shipments
- Civil Engineering Fabric Shipments

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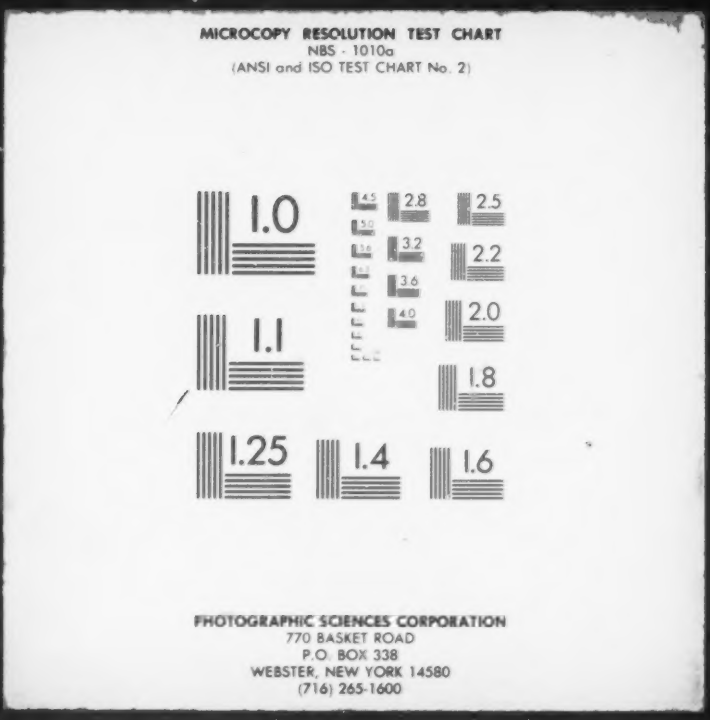

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